



January 20, 2017

Ms. Barbara H. Kelly  
Wilson Elser Moskowitz Edelman & Dicker, LLP  
200 Campus Drive  
Florham Park, New Jersey 07932

**RE: Lead is the Only COC Identified in the ROD That Appears in the Covanta Nexus Documents on Six Occasions. This Supplemental Evaluation Documents That the Lead Exceedances are Attributable to Off-Site Sources.**

Dear Ms. Kelly:

As you requested, this letter is a supplement to the Apex Report dated August 26, 2016 which was entitled, *Technical Evaluation - Covanta Essex Company - Essex County Resource Recovery Facility, 183 Raymond Boulevard and 66 Blanchard Street, Newark, New Jersey* (Site or Property). The Apex Report was attached to Covanta's August 26, 2016 correspondence forwarded to Ms. Alice Yeh of the U.S. EPA Region 2 (USEPA). This supplementary evaluation contains information that identifies the off-site source for lead that has impacted the Property and surrounding areas.

## **Background**

The Apex Report evaluated USEPA documents purporting to show Covanta's alleged nexus to the Contaminants of Concern (COC's) identified in the March 2016 Record of Decision (ROD) for the Lower Passaic River Study Area (LPRSA). These documents show that Covanta's alleged nexus to the LPRSA is limited to stormwater New Jersey Pollutant Discharge Elimination System (NJPDES) exceedances that occurred over a four-year period from July 1989 to August 1993.

Notably, lead, the sole COC identified in the Covanta nexus documents, appears at low concentrations, and only on six isolated occasions. Because lead is the only COC appearing in the alleged nexus documents, with no apparent relationship to Covanta's operations, Covanta has devoted particular attention to evaluating sources for lead in the vicinity of the subject Property.

Covanta has never owned the Property but leases same from the Port Authority of New York and New Jersey. The lease was entered into prior to the facility's construction in 1988. Lead was found in site assessments commissioned by the Port Authority prior to 1988. Lead was also found on the adjacent Otillio Landfill property which is up-gradient from the subject site. Lead also occurs in Passaic River sediment which backs up into the site's NJPDES outfalls during high tide. While it is clear that lead, both on and surrounding the site, pre-dated operations by Covanta or its predecessor, the actual, historic source for lead both on the property and regionally as of our August 26, 2016 report was not yet identified.

The August 26, 2016 letter to USEPA stated the following, *"The only LPRSA COC present in stormwater discharged from the Property at any time was lead, and this COC is attributable to pre-existing contamination on the property, off-site sources, and backflow from the LPRSA during high tide events."*

### Off-Site Historic Source for Lead

Apex reviewed the New Jersey Department of Environmental Protection (NJDEP) central files in Trenton for the purpose of assessing present and historic environmental activities on adjacent parcels that could potentially impact the subject Property with lead, especially near the "western ditch" on the Property where the stormwater NJPDES nexus exceedances for lead occurred.

The historic source for lead in the area immediately became clear during the file review. From 1915<sup>i</sup>, until 1956, the now-closed Eagle Pitcher Lead Company operated immediately west of the site on the present Norpak Corporation property (**Exhibit 1**).<sup>ii</sup> The "western ditch" where Covanta's NJPDES outfalls were located effectively forms the property boundary between Covanta and the Norpak / Eagle Pitcher property. Eagle Pitcher Lead Company / Norpak is the likely source of the lead on the Site and in the western ditch.

From at least 1931 until the Eagle Pitcher / Norpak property was sold to Vincent Corica (founder of Norpak) in 1956, Eagle Pitcher Lead Company produced pulverized lead at this location to be used in the production of lead-based paint (see Norpak v. Eagle Pitcher Industries, American Bankruptcy Institute, May 1998).<sup>iii</sup> Sanborn fire insurance maps indicate that the Eagle Pitcher operations included a lead smelter, a lead refining building, a lead milling building and laboratory, as well as facilities for shipping and storage of lead.<sup>iv</sup> Stormwater from the Eagle Pitcher Lead / Norpak property, potentially containing lead dust from Eagle Pitcher's pulverizing process, formerly drained directly on to the Covanta property before the present west ditch was constructed sometime between 1966-1982.<sup>v</sup> After the west ditch was constructed, Eagle Pitcher Lead / Norpak runoff has drained into the west ditch on the Site, precisely where Covanta's historic NJPDES sampling outfalls were located when the lead exceedances occurred.

Official NJDEP files indicate that the entire Norpak property is highly impacted with lead from Eagle Pitcher's historic operations.

The following are excerpts from NJDEP's files pertaining to lead on the Norpak property and its impact from former Eagle Pitcher Lead Company operations:

- 1) In 1993, Ensa Environmental (also known as INTEX Environmental)<sup>vi</sup> performed an evaluation of heavy metals on the Norpak property from Eagle Pitcher's former operations; high lead concentrations of greater than 20,000 parts per million in soils were detected. The INTEX 1993 study concludes, *"the lead concentrations on site are indicative of an emission source of lead at the facility. The values are well in excess of levels that may be attributable to automobile exhaust."*<sup>vii</sup> A map showing sample locations and accompanying data table showing individual lead concentrations from 1993 are appended (**Exhibit 2**).
- 2) In 1994, Norpak signed a memorandum of agreement (MOA) with NJDEP for assessment of lead and other contamination on its site (**Exhibit 3**).



- 3) In May 1995, Attachment VI (Lead Assessment) of the Preliminary Assessment Report [for Norpak] by Ensa Environmental Inc. concluded the following: *"Approximate contours of lead in soil are presented in Figure 4. Measurements taken adjacent to the drainage ditch and in the sediment in the ditch ranged from 400ppm to 915ppm [this is the same drainage ditch where Covanta's stormwater NJPDES outfalls are located]. Measurements [of lead] taken inside the building ranged from 4,442ppm on the floor of Building 9 to greater than 10,000ppm on the wall in Building 7..."* Attachment VI of the May 1995 Ensa report (Lead Assessment) is attached hereto (**Exhibit 4**).
- 4) In November 1999, MEI Environmental Group prepared a Remedial Cost Proposal for the Norpak property and determined that 22,829 yd<sup>3</sup> of soil were impacted with lead and required remediation; MEI estimated remedial cost for the Norpak property at \$7.2 million dollars, assuming excavation of lead-impacted soil and backfilling with clean fill.<sup>viii</sup>
- 5) Additional sampling for lead occurred on the Norpak property in 1999 and 2002 during which 75 soil borings were completed to delineate the impact from lead in soil and groundwater beneath the Norpak property; lead was detected in soil and groundwater in excess of NJDEP criteria.<sup>ix</sup>
- 6) On 6 April 2005, the USEPA Region 2 Site Assessment Team conducted an on-site reconnaissance of the Norpak site and concluded the following: *"Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the site; storm water is discharged to the Passaic River."*<sup>x</sup> The referenced ditch on the eastern boundary of Norpak is the same ditch that forms the western boundary of Covanta where Covanta's NJPDES outfalls experienced historic lead exceedances.
- 7) Treatment of 17,934 tons of lead-impacted soil on the Norpak site was completed by July 2006 by Severson Environmental Services, Inc. using Severson's proprietary MAECTite process for approximately \$1.2M with an additional projected \$500K for long term site monitoring.<sup>xi</sup>
- 8) In July 2007 the Remedial Action Final Report for the Norpak property was completed by Severson Environmental Services, Inc. The final remedy incorporated a deed restriction covering the entire Norpak property to serve as an institutional control to prevent future receptor contact with lead (**Exhibit 5**).
- 9) In a January 2009 follow-up assessment of groundwater beneath the Norpak property<sup>xii</sup>, Severson determined that groundwater still exceeded the groundwater quality criterion for lead by two orders of magnitude in 3 of 5 monitoring wells tested. The deed notice of institutional controls for lead was attached to the Severson 2009 report as Appendix F.
- 10) On October 21, 2009, NJDEP approved a conditional no further action (NFA) determination for the Norpak site, conditional on the deed restriction of the entire property to non-residential use due to high remaining lead concentrations (**Exhibit 6**).

## Closing

We are available to discuss these findings at your convenience.

Sincerely,  
**Apex Companies, LLC**



T. Fort, M.S., PG  
Principal

TF/ms

cc: Ms. Nancy Tammi - Covanta

## Exhibits

1. Vicinity Map
2. Lead Concentrations on Norpak - 1993
3. Norpak/NJDEP Memo of Agreement
4. Lead Survey Summary for Norpak – 1995
5. Deed Restriction Placed on Entire Norpak Property for Lead
6. NJDEP NFA and Covenant Not to Sue Conditional on Deed Notice and Monitoring

## Attachments:

- Site Inspection Report, Norpak Corporation, Newark, Essex County, NJ, Weston Solutions, Inc., July 2005

## End Notes:

---

<sup>i</sup> Site Inspection Report, Norpak Corporation, Newark, Essex County, NJ, Weston Solutions, Inc., July 2005

<sup>ii</sup> Sanborn Fire Insurance Maps 1892-2003

<sup>iii</sup> American Bankruptcy Institute: Rewriting or Summarizing Hemmingway Transport, May 1998;

<http://www.abi.org/abi-journal/norpak-v-eagle-picher-industries-rewriting-or-summarizing-hemingway-transport>

<sup>iv</sup> Sanborn Fire Insurance Maps 1892-2003

<sup>v</sup> Essex County Resource Recovery Environmental Impact Statement, October 1983

<sup>vi</sup> Site Inspection Report, Norpak Corporation, Newark, Essex County, NJ, Weston Solutions, Inc., July 2005

<sup>vii</sup> X-Ray Fluorescence Metals Survey and Environmental Assessment, Norpak Inc., Blanchard Street Facility, Newark, NJ, INTEX, Inc., December 1993

<sup>viii</sup> Remedial Cost Proposal, MEI Environmental, November 1999

<sup>ix</sup> Site Inspection Report, Norpak Corporation, Newark, Essex County, NJ, Weston Solutions, Inc., July 2005

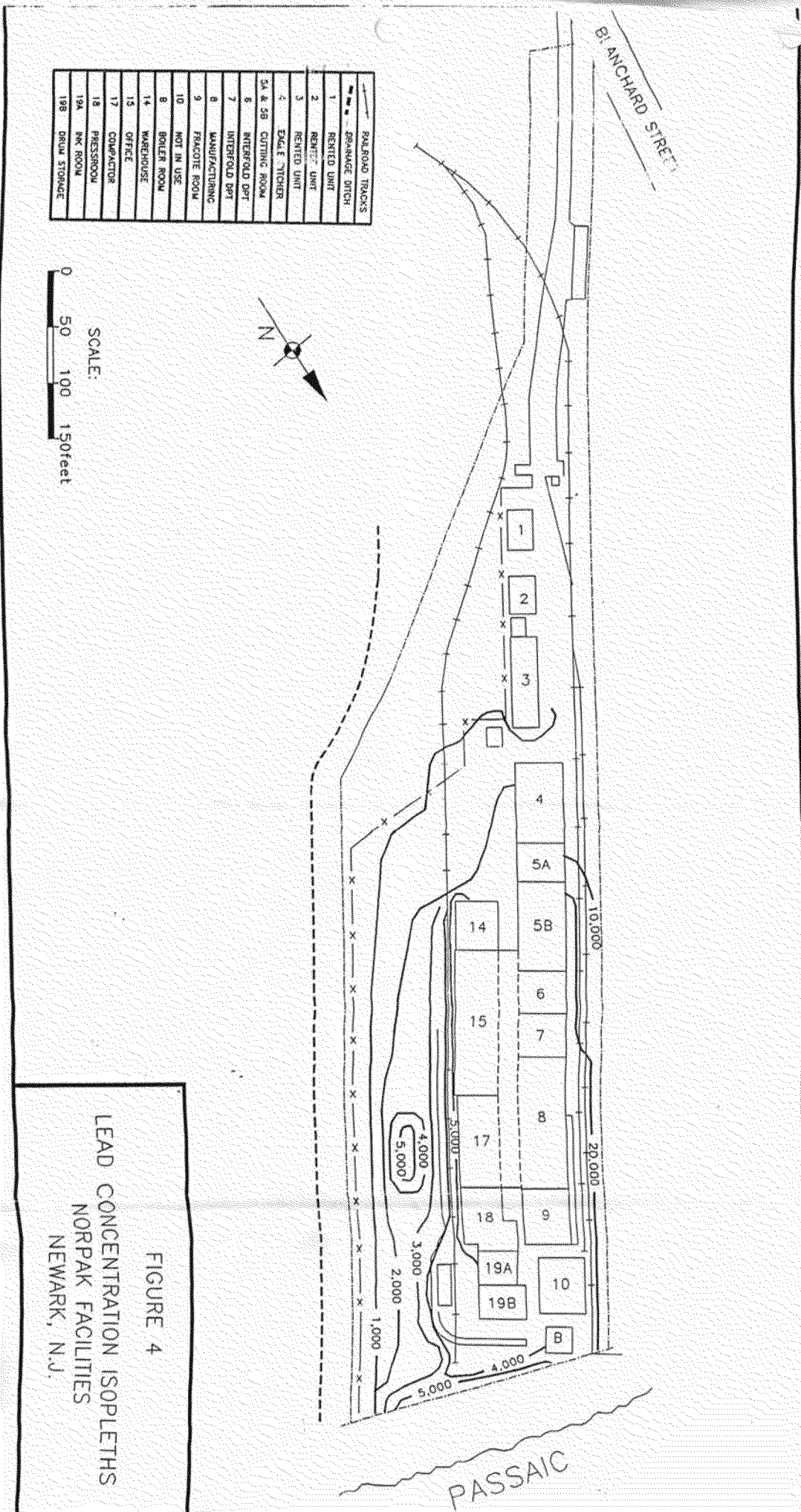
<sup>x</sup> Site Inspection Report, Norpak Corporation, Newark, Essex County, NJ, Weston Solutions, Inc., July 2005

<sup>xi</sup> Remedial Action Final Report, Severson Environmental, July 2007

<sup>xii</sup> Task Area 3 Soil Delineation and Groundwater Investigation, Severson Environmental, April 2009

# EXHIBIT 1 – LOCATION OF FORMER EAGLE PITCHER LEAD COMPANY RELATIVE TO THE COVANTA SITE







RAILROAD TRACKS
DRAINAGE DITCH
1 RENTED UNIT
2 RENTED UNIT
3 RENTED UNIT
4 EAGLE PITCHER
5A & 5B CUTTING ROOM
6 INTERFOLD DPT
7 INTERFOLD DPT
8 MANUFACTURING
9 FRACOTE ROOM
10 NOT IN USE
14 BOILER ROOM
15 WAREHOUSE
17 COMPACTOR
18 PRESSROOM
19A BIK ROOM
19B DRUM STORAGE

SCALE:  
0 50 100 150feet

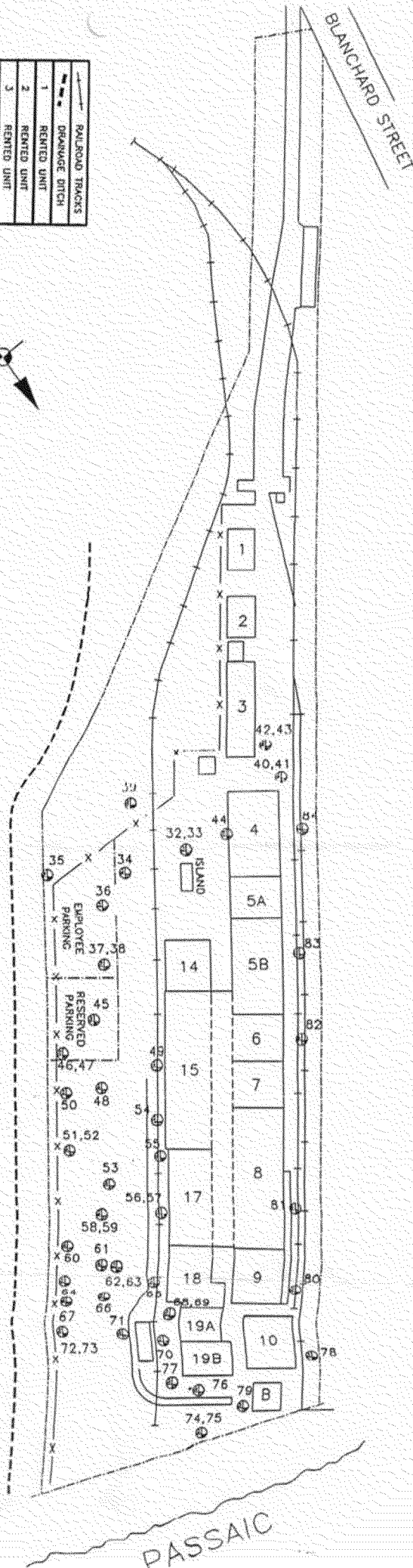


FIGURE 3  
12/9/93. SAMPLING POINTS  
ORPAK FACILITIES  
NEWARK, N.J.

**TABLE 1  
XRF RESULTS (mg/kg)  
NORPAK FACILITY  
BLANCHARD STREET, NEWARK, N.J.**

AMPLE	CONC. Pb	LOCATION	REMARKS
1	583/612	Old asphalt beneath 1/2-1" thick gravel	
2	4254	Soil at bottom of steps, Building 1	
3	967	Concrete step #2, Building 1	
4	676	Between railroad tracks, end of Building 1	
5	185/218	Driveway L, Building 2	
6	1320	Concrete Pad end of Building 1	
7	3562	Soil between Buildings 1&2 of loading ramp	
8	1610	Side railroad track opposite Building 3	
9	4017	1' off end of Building 3 soil	
10	1308	Soil 2' off fence corner	
11	2930	Corner Building 15, 3' from Railroad track	
12	1359	Center Building 14 near roof drain	Sampled
		Floor sample office area 1103 "0" 940	
13	4790	Soil 6" deep in front of Bldg. 10 East of Main Entrance	Sampled
14	>10,000	Soap stone downspout diffuser beyond cal range	
15	1867	Property line east midpoint Building 14	
16	8661	Mid point Building 17, 1ft. from railroad track	Sampled
17	1433	Property line opposite north end of Building 17	
18	8609	Between 2 paraffin tankers 12" from building next to pile of asbestos cement roof tiles	
19	>10,000 Off Scale	Midway between Building 18 and property line	
20	3699	Property line opposite Building 19	
21	631	North corner Building 18	
22	4291	Property line soil behind 20,000 tank	Sampled
	3926	Repeat	
23	4907	Concrete between Buildings 19 and 10	
24	4443	Floor North end Building 9	
25	Off Scale	West side Building 8, rail siding loading dock	
26	1222	2' off Building wall, concrete loading dock	
27	Off Scale	North end of Building 8, brick wall 5' high	
	>10,000		
28	Off Scale	Center Building 8, brick wall 5' high	
	>10,000		
29	Off Scale	Wall Building 7, 5' high	
	>10,000		
30	6838	Soil 2' off rail side Building 6, loading ramp 6" deep	Sampled

**TABLE 1 (cont'd)**  
**XRF RESULTS (mg/kg)**

LE	CONC. Pb	LOCATION	REMARKS
32	4568	Soil near concrete block shed surface	
33	2066	Soil near concrete block shed 6" deep	
34	577	Employee Gravel Parking 6" deep	
35	654	Edge of stream & stream has oily sheen	
36	537	Entrance employee lot	
37	2571	Employees lot NW corner	
38	5010	Employees lot 4" deep hard pack gravel	
39	1248	Soil Property line, opposite south end Building 4	
40	1159	West of railroad, south end of Building 4 surface	
41	2531	West of railroad 4" deep to old railroad ballast	
42	2238	NW corner Building 3, soil	
		0 check = 506	
43	2082	Location 42, 6" deep to hard pack gravel	
44	4321	Wall of Building 4	
45	1424	Center reserved lot, gravel	
46	1449	NE corner reserved lot, soil	
47	2481	Location 45, 6" deep clay/soil	
48	1372	Middle Bldg. 15, Middle Bldg. & Property line gravel	
49	2108	Middle Building 15, 1' off building gravel	
50	582	Property line midpoint Building 15	
51	1271	Property line north end Building 15 Surface	
52	400	Location 51, 6" deep clay	
	396	Standard Reading actual 396 - offset 1004	
		"0" reading 0	
53	1289	Midway between north end of Building 15 & Property line	
54	1887	South end of diesel tank car	
55	2560	North end of diesel tank car	
56	6713	Building 17 mid point 4' from wall	
57	3260	Location 56, 6" deep inside railroad tracks	
58	4974	South end of transformer inc.	
59	2581	Location 58, 3" deep concrete pad	
60	898	Property line opposite south end transformers	
61	1515	North end transformer inc.	
62	8671	North end transformer on soil	
63	GT 10,000	Location 62, 4" deep hard packed gravel	
64	1531	Property line midpoint Building 18	
65	GT 10,000	Between 2 tankers outside railroad tracks	
	est. 14,096		
66	GT 10,000	Midway between bldg. & property line 50' North of trans	
67	1236	Property line	



TABLE 1 (cont'd)  
XRF RESULTS (mg/kg)

	CONC. Pb	LOCATION	REMARKS
	GT 10,000	Location 68, 6" deep purple gray soil	
	est. 14,096	Repeat Location 68	
	GT 10,000	West edge drum storage opposite Location 68	
	410	East edge drum storage opposite Location 68	
	4562	Property line midpoint Building 19A	
	2288	Location 72, 6" deep	
	2095	Property line, north end of Building 19	
	2040	Location 74, 9" deep black gravel or ml.	
	1866	On asphalt, north corner of contaminant	
	GT 10,000	Corner of 19B North East	
	5304	Rear property line center of Building 19B	
	4188	East end of Boiler Room	
	GT 10,000	10' off railroad dock west Building 9	
	GT 20,000	Repeat	
	GT 10,000		
	GT 10,000	West property line middle Building 6	
	GT 10,000	West property line middle Building 5	
	GT 10,000	West property line middle Building 4	





State of New Jersey  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION AND ENERGY

Exhibit 3

ROBERT C. SHINN, JR.  
Commissioner

WHITMAN

THE MATTER OF  
BLANCHARD STREET

MEMORANDUM  
OF  
AGREEMENT

This Memorandum of Agreement is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection and Energy (hereinafter "the Department" or "NJDEPE") by N.J.S.A. 13:1D-1 et seq. and N.J.S.A. 58:10B et seq. and the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq., and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. and duly delegated to the Assistant Director, Division of Responsible Party Site Remediation pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. The property that is the subject of this Memorandum of Agreement is owned by Norpak Corporation, and is located at 70 Blanchard Street and is designated as Block 5001, Lot 58 on the tax map of the City of Newark, Essex County, New Jersey (hereinafter the "Site"). The Site is bounded generally by Blanchard Street, the Passaic River, American Ref-Fuel of Essex County and Fairmont Chemical Co.

2. Norpak Corporation (hereinafter "Norpak"), incorporated in the State of Delaware, with principal offices at 70 Blanchard Street, Newark, New Jersey is the party executing this Memorandum of Agreement.

3. The intent of this Memorandum of Agreement is to allow Norpak to request amnesty pursuant to N.J.S.A. 13:1K-11.10 and to remediate the industrial establishment as required pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq.

4. By entering into this Memorandum of Agreement, Norpak does not admit to any fact, fault or liability under any statute or regulation for conditions which existed before, during, or after Norpak's execution of this Memorandum of Agreement nor shall it be construed as a waiver of any right or defense Norpak may have with regard to the Site.

5. On June 3, 1994, Norpak notified the Department of the cessation of operations of certain industrial establishments at the Site. These industrial establishments, and the dates on which they ceased are listed in Attachment A.

6. Since Norpak has notified the Department of the cessations of operations of the industrial establishments listed in Attachment A and has entered into a Memorandum of Agreement to remediate the industrial establishment, the Department believes that Norpak meets the conditions for amnesty pursuant to N.J.S.A. 13:1K-11.10.

7. The Department received Norpak's request for amnesty as referenced on or before June 16, 1994. Norpak shall execute and return this Memorandum of Agreement to the Department within fifteen (15) days after Norpak's receipt of this Memorandum of Agreement and submit the General Information Notice referenced in Paragraph 18 below in order to satisfy the conditions for amnesty pursuant to N.J.S.A. 13:1K-11.10.

8. If Norpak fails to remediate the industrial establishment and any charges in accordance with this Memorandum of Agreement, Norpak shall be subject to all penalties for violations that occurred before the effective date of N.J.S.A. 58:10B-15, June 16, 1993, as well as subsequent violations,

9. On June 3, 1994, Norpak notified the Department of certain discharges from the Site pursuant to N.J.A.C. 7:1E-5.

10. Prior to the execution of this Memorandum of Agreement:

- a. The Department has not directed Norpak, pursuant to the Spill Compensation and Control Act, to remove or arrange for the removal of the discharges referenced in the preceding paragraph;
- b. The Department has not initiated an enforcement action against Norpak pursuant to N.J.S.A. 58:10-23.11u for the illegal discharges referenced in the preceding paragraph;
- c. The discharges referenced in the preceding paragraph were not permitted discharges pursuant to N.J.A.C. 7:14A;
- d. Norpak has not previously entered into an Administrative Consent Order to cleanup and remove the discharges referenced in the preceding paragraph; and
- e. A court has not ordered Norpak to cleanup and remove the discharges referenced in the preceding paragraph.

11. Based on the previous two (2) findings, the Department believes that Norpak meets that conditions for amnesty pursuant to N.J.S.A. 58:10B-15.

12. If Norpak fails to remediate the discharges in accordance with this Memorandum of Agreement, Norpak shall be subject to all penalties for violations that occurred prior to the effective date of N.J.S.A. 58:10B-15, June 16, 1993 as well as subsequent violations.

#### AGREEMENT

##### I. Remediation

13. Norpak agrees to submit the following documents and the Department agrees to review and comment on documents submitted.

- a. Preliminary Assessment Report
- b. Site Investigation Report
- c. Remedial Investigation Report
- d. Remedial Action Report

14. Within thirty (30) calendar days after the Department's receipt of submission pursuant to this Memorandum of Agreement, the Department will inform Norpak in writing of any administrative deficiencies in the submission, pursuant to N.J.A.C. 7:26E, that will prevent the Department from conducting its review. When the Department determines that the submission is administratively complete, the Department will notify Norpak in writing of the timeframe required for the Department to complete the review. This review will include a determination by the Department whether or not all remedial activities have been carried out consistent with applicable rules, standards, and guidelines.

15. Within seven (7) calendar days after the effective date of this Memorandum of Agreement, Norpak will submit to the Department; a) the name, address and telephone number of the individual who will be the contact for Norpak regarding technical matters concerning this Memorandum of Agreement and b) the name and address of the designated agent for Norpak for the purpose of service for all matters concerning this Memorandum of Agreement.

16. Norpak may terminate this Memorandum of Agreement if Norpak determines that it is no longer feasible or desirable to continue with this Memorandum of Agreement, when Norpak:

- a. Submits full payment to the Department for any Department oversight costs the Department incurred pursuant to this Memorandum of Agreement;
- b. Notifies the Department in writing of its intentions to terminate this Memorandum of Agreement;
- c. Submits all data generated pursuant to this Memorandum of Agreement; and
- d. Ensures that no environmental hazards exist at the Site as a result of Norpak's actions pursuant to this Memorandum of Agreement.
- e. The Department will cease review of any submittals under this Memorandum of Agreement on the date it receives the notice of intent to terminate described in Paragraph 16b above; and no oversight costs will accrue after the Department has determined that the signatory is in full compliance with Paragraph 16. The Department will then prepare a summary of its costs and provide it to Norpak. The date of termination of this agreement is the date of the Department's receipt of both the full unconditioned payment of all of the Department's oversight costs and all data required by Paragraph 16c. above.

## II. Project Coordination

17. Unless otherwise directed by the Department, Norpak shall submit two (2) copies of all documents required by this Memorandum of Agreement to the person identified below, who shall be the Department's contact for Norpak for all matters concerning this Memorandum of Agreement.

New Jersey Department of Environmental Protection and Energy  
Division of Responsible Party Site Remediation  
401 East State Street, 5th floor  
CN028  
Trenton, NJ 08625-0028

he



### III. Financial Obligations

18. Upon receipt of a summary of the Department's costs incurred in connection with its oversight functions of this Memorandum of Agreement, Norpak shall submit to the Department a cashier's or certified check payable to the Treasurer, State of New Jersey, with NJDEPE Form 062A for the full amount of the Department's oversight costs. Norpak cannot be released from its obligations under this Memorandum of Agreement, until all oversight costs, for work performed by the Department, are paid.

19. Beginning three hundred sixty-five (365) calendar days after the effective date of this Memorandum of Agreement, and annually thereafter on that same calendar day, Norpak shall submit to the Department a detailed summary of monies spent to date pursuant to this Memorandum of Agreement, the estimated cost of all future expenditures associated with this Memorandum of Agreement (including any operation and maintenance costs), and the reason for any changes from the previous cost review Norpak submitted.

### IV. Reservation of Rights

20. The Department reserves the right to unilaterally terminate this Memorandum of Agreement in the event that Norpak violates any terms or fails to meet the obligations of this Memorandum of Agreement or in the event that the Department becomes a high priority for the Department.

21. Nothing herein, including any document the Department issues as agreed to above, shall be interpreted to constitute a release or waiver of liability for any of the conditions which existed before, during or after the Department's execution of this Memorandum of Agreement.

### V. General Conditions

22. Within five (5) calendar days after the effective date of this Memorandum of Agreement, Norpak will submit a General Information Notification to the Department for each closure of operations or transfer of ownership or operations of an industrial establishment as referenced in Attachment A.

23. Norpak shall, in addition to any other obligation required by law, notify the Department contact immediately upon knowledge of any condition posing an immediate threat to human health and/or the environment.

24. Norpak shall perform all work conducted pursuant to this Memorandum of Agreement in accordance with N.J.A.C. 7:26E and prevailing professional standards then prevailing.

25. Norpak shall conform all actions required by this Memorandum of Agreement with all applicable federal, State and local laws and regulations.

26. Nothing in this Memorandum of Agreement shall be deemed to impose on Norpak any additional liabilities or obligations, other than those specifically stated herein. Nothing shall relieve Norpak from complying with all other applicable laws and regulations.

27. Norpak shall preserve all potential evidentiary documentation found at the Site, which may provide a nexus between the contaminated site and any responsible party or lead to the discovery of other areas of concern including, without limitation, documents, labels, drums, bottles, boxes or other containers, and/or other physical materials that could lead to the establishment of the identity of any person which generated, treated, transported, stored or disposed of contaminants at the Site, until written approval is received from the

ATTACHMENT A

TENANT

LINE PAINTING & DEC. INC.  
STEFAN KURANT  
EM MOVING & STORAGE  
M RE-FUEL OF ESSEX CO

DATE OF CESSATION

4/84

2/87

12/89

11/90

28. Upon receipt of a written request from the Department, Norpak shall transmit to the Department all data and information concerning contamination at the site, including technical records and contractual documents, and raw sampling and monitoring data, whether or not such data and information was developed pursuant to this Memorandum of Agreement. If Norpak believes any such data or information is protected by a privilege it will retain the data and information and notify the Department of the nature of the document and the privilege claimed. Norpak requests that the Department keep confidential information contained in a transmission to the Department pursuant to N.J.A.C. 7:14A-11.

29. The Department will issue a no further action statement when the Department has determined that the signatory has conducted the agreed upon remedial activities pursuant to this Memorandum of Agreement and the remedial activities are in accordance with all Department requirements.

30. This Memorandum of Agreement shall be governed and interpreted under the laws of the State of New Jersey.

31. This Memorandum of Agreement shall be binding, jointly and severally, on each party, its successors and assignees subject to the right of termination without cause. No change in the ownership or corporate or business status of any party, of the facility or Site shall alter any signatories' responsibilities under this Memorandum of Agreement.

32. This Memorandum of Agreement shall become effective upon execution and ratification by all parties.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

Date: 7/14/94

BY: [Signature]  
Ron T. Corcoran, Assistant Director  
Responsible Party Cleanup Element

NORPAK CORPORATION

Date: 7/8/94

BY: [Signature]  
Signature  
Anthony A. Coraci  
Print Full Name Signed Above  
President  
Title



ATTACHMENT VI  
LEAD SURVEY

Exhibit 4

ATTACHMENT VI  
LEAD SURVEY

In December of 1993, ENSA Environmental, Inc. was tasked to evaluate the presence of heavy metals, principally lead, at the Norpak Facility located at 70 Blanchard Street, Newark, N.J. (Figure 1). The purpose of this evaluation was to provide an assessment of environmental conditions on the property and any impact that had resulted from the previous owner's operations. The previous owner of the facility was Eagle Picher Corporation. Eagle Picher operated a lead smelter and manufacturing operation at this location until the late 1950's. Norpak acquired the facility and converted the operations to the manufacture of food-quality wrapping papers. Due to the nature of the previous owner's operations it was suspected that the facility may have been impacted by metallic lead.

A portable x-ray fluorescence analyzer (XRF) was used to survey the soil, paved lots and roadways and building walls at the facility. Sampling locations were selected to provide a representative picture of the lead concentrations in the areas outside of the buildings throughout the site. Concentrations were measured on the surface and, where possible, 6 to 12 inches below the surface. Selected sampling locations were also measured inside several buildings.

Soil samples were collected at five locations after the field screening analysis was completed. These samples were then submitted for laboratory analysis for lead (Pb), zinc (Zn), and cadmium (Cd). These samples were collected and analyzed to verify the calibration of the instrument.

A total of 84 XRF readings were taken across the site during two days of the survey. Five soil samples were collected and analyzed for lead, zinc and cadmium. The XRF lead results are presented in Table 1. The results of the soil sample analyses are presented in Table 2 with the corresponding XRF field screening analyses. The XRF sampling locations are presented in Figure 2 and Figure 3.

Lead concentrations ranged from 580 parts per million (ppm) at the northern end of the property near Blanchard Street to greater than 20,000 ppm at the northwest side of the property. All samples measured in the area of the railroad spur west of buildings 4, 5, 6, 7, 8, and 9 were beyond the range of the instrument with readings greater than 10,000 ppm.

Approximate contours of lead concentrations in the soil are presented in Figure 4. Measurements taken adjacent to the drainage ditch and in the sediment in the ditch ranged from 400 ppm to 915 ppm. Measurements taken inside the building ranged from 4,442 ppm on the floor of Building 9 to greater than 10,000 ppm on the wall four feet above the floor in Building 7, directly outside the door to the office area.

It is recommended that additional lead sampling and analysis be conducted according to the Technical Requirements for Site Remediation (TRSR) in order to provide the delineation necessary for the determination of remedial alternatives.

RECORDED IN THE SAME MANNER AS ARE DEEDS AND OTHER INTERESTS IN  
**REAL PROPERTY.**

Prepared by: WWZ  
[Signature]

Exhibit 5

Todd W. Terhune, Esq.  
[Print name below signature]

R&R  
WOLFF AND SAMSON  
ONE BOLAND DRIVE  
WEST ORANGE NJ 07052

Recorded by: \_\_\_\_\_  
[Signature, Officer of County Recording Office]

\_\_\_\_\_  
[Print name below signature]

### DEED NOTICE

This Deed Notice is made as of the 12th day of August, 2009 by Norpak Corporation, 70 Blanchard Street, Newark, Essex County, New Jersey (together with its successors and assigns, collectively "Owner").

1. **THE PROPERTY.** Norpak Corporation, 70 Blanchard Street, Newark, Essex County, New Jersey, is the owner in fee simple of certain real property designated as Block 5001, Lot 58 on the tax map of the City of Newark, Essex County; the New Jersey Department of Environmental Protection Program Interest Number (Preferred ID) for the contaminated site which includes this property is 032503; and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. <sup>NSK</sup> **DEPARTMENT'S ASSIGNED BUREAU.** The Bureau of Case Management was the New Jersey Department of Environmental Protection program that was responsible for the oversight of the remediation of the Property. The matter was Case No. 94-07-26-0927-23.

3. **SOIL CONTAMINATION.** Norpak Corporation has remediated contaminated soil at the Property, and the New Jersey Department of Environmental Protection approved a remedial action on July 8, 2009, such that soil contamination remains in certain areas of the Property which contains contaminants in concentrations that do not allow for the unrestricted use of the Property; this soil contamination is described, including the type, concentration and specific location of such contaminants, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.



...approval of the remedial action work plan for the remediation of the site which included the Property, and in consideration of the terms and conditions of that approval, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements which impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessees and operators of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Deed Notice and required by law, as set forth herein.

**5A. RESTRICTED AREAS.** Due to the presence of these contaminants, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions on site for inspection by governmental enforcement officials.

**5B. ENGINEERING CONTROLS.** Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C.

**6A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.**

i. Except as provided in Paragraph 6B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first obtaining the express written consent of the Department of Environmental Protection. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration. To request the consent of the Department of Environmental Protection, contact:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

ii. Notwithstanding subparagraph 6A.i., above, the Department of Environmental Protection's express written consent is not required for any alteration, improvement, or disturbance provided that the owner, lessee or operator:

(A) Notifies the Department of Environmental Protection of the activity by calling the DEP Hotline, at 1-877-WARN-DEP or 1-877-927-6337, within twenty-four (24) hours after the beginning of each alteration, improvement, or disturbance.

*Restores any disturbance of an engineering control to pre-disturbance conditions within sixty (60) calendar days after the initiation of the alteration, improvement or disturbance.*

(C) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration.

(D) Ensures that exposure to contamination in excess of the applicable remediation standards does not occur.

(E) Submits a written report, describing the alteration, improvement, or disturbance, to the Department of Environmental Protection within sixty (60) calendar days after the end of each alteration, improvement, or disturbance. The owner, lessee or operator shall include in the report the nature of the alteration, improvement, or disturbance, the dates and duration of the alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the alteration, improvement, or disturbance, a description of the notice the Owner gave to those persons prior to the disturbance, the amounts of soil generated for disposal, if any, the final disposition and any precautions taken to prevent exposure. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

**6B. EMERGENCIES.** In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, any person may temporarily breach any engineering control provided that that person complies with each of the following:

- i. Immediately notifies the Department of Environmental Protection of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337.
- ii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency.
- iii. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination.
- iv. Notifies the Department of Environmental Protection when the emergency has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337.
- v. Restores the engineering control to the pre-emergency conditions as soon as possible, and provides a written report to the Department of Environmental Protection of such

emergency, potential discharges of contaminants, and restoration measures that were implemented, which, at a minimum, should specify: (a) the nature and likely cause of the emergency, (b) the potential discharges of or exposures to contaminants, if any, that may have occurred, (c) the measures that have been taken to mitigate the effects of the emergency on human health and the environment, (d) the measures completed or implemented to restore the engineering control, and (e) the changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

**7A. MONITORING AND MAINTENANCE OF DEED NOTICE, AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the persons responsible for conducting the remediation, the Owner, and the subsequent owners, lessees, and operators, shall monitor and maintain this Deed Notice, and certify to the Department on a biennial basis that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the deed notice shall include all of the following:

- i. Monitoring and maintaining this Deed Notice according to the requirements in Exhibit C, to ensure that the remedial action that includes the Deed Notice continues to be protective of the public health and safety and of the environment.
- ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the site prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment.
- iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes this Deed Notice, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded.



## **7B. MONITORING AND MAINTENANCE OF ENGINEERING CONTROLS,**

**AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the person responsible for conducting the remediation, and, the Owner, and the subsequent owners, lessees, and operators, shall maintain all engineering controls at the Property and certify to the Department on a biennial basis that the remedial action of which each engineering control is a part remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the engineering controls shall include the following:

- i. Monitoring and maintaining each engineering control according to the requirements in Exhibit C, to ensure that the remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment.
- ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the Property prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes the engineering control remains protective of the public health and safety and of the environment.
- iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes the engineering control, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded.

**8. ACCESS.** The Owner and the subsequent owners, lessees and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if persons responsible for monitoring the protectiveness of the remedial action, as described in Paragraph 7, above, fail to conduct such remediation pursuant to this Deed Notice as required by law. The Owner, and the subsequent owners and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

## **9. NOTICES.**

- i. The Owner and the subsequent owners and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.

conduct invasive work or excavate within the Restricted Areas at the Property, including, without limitation, tenants, employees of tenants, and contractors of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.

iii. The Owner and the subsequent owners shall provide written notice to the Department of Environmental Protection at least thirty (30) calendar days before the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the owner's interest in the Restricted Area.

iv. The Owner and the subsequent owners shall provide written notice to the Department within thirty (30) calendar days following the owner's petition for or filing of any document initiating a rezoning of the Property. The Owner and the subsequent owners shall submit the written notice to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413.

## **10. ENFORCEMENT OF VIOLATIONS.**

i. This Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.

ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Deed Notice. To enforce violations of this Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11u and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11g.

**11. SEVERABILITY.** If any court of competent jurisdiction determines that any provision of this Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Deed Notice shall remain in full force and effect.

*Until and upon Owner's successors and assigns, and subsequent owners, lessees and operators*  
while each is an owner, lessee, or operator of the Property.

### 13. MODIFICATION AND TERMINATION.

i. Any person may request in writing, at any time, that the Department modify this Deed Notice where performance of subsequent remedial actions, a change of conditions at the Property, or the adoption of revised remediation standards suggest that modification of the Deed Notice would be appropriate.

ii. Any person may request in writing, at any time, that the Department terminate this Deed Notice because the conditions which triggered the need for this Deed Notice are no longer applicable.

iii. This Deed Notice may be revised or terminated only upon filing of an instrument, executed by the Department, in the office of the County Clerk of Essex County, New Jersey, expressly modifying or terminating this Deed Notice.

**14A. EXHIBIT A.** Exhibit A includes the following maps of the Property and the vicinity:

i. Exhibit A-1: Vicinity Map – A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, Hagstrom County Maps).

ii. Exhibit A-2: Metes and Bounds Description – A metes and bounds description of the Property, including reference to tax lot and block numbers for the Property.

iii. Exhibit A-3: Property Map – A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.

**14B. EXHIBIT B.** Exhibit B includes the following descriptions of the Restricted Areas:

i. Exhibit B-1: Restricted Area Map – A separate map for each restricted area that includes:

(A) As-built diagrams of each engineering control, including caps, fences, slurry walls, ground water monitoring wells, and ground water pumping system;

(B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and



the following paragraph.

ii. Exhibit B-2: Restricted Area Data Table – A separate table for each restricted area that includes:

- (A) Sample location designation from Restricted Area map (Exhibit B-1);
- (B) Sample elevation based upon mean sea level;
- (C) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;
- (D) The restricted and unrestricted use standards for each contaminant in the table; and
- (E) The remaining concentration of each contaminant at each sample location at each elevation (or if historic fill, include data from the Department's default concentrations at N.J.A.C. 7:26E-4.6, Table 4-2).

**14C. EXHIBIT C.** Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:

i. Exhibit C-1: Deed Notice as Institutional Control – Exhibit C-1 includes a narrative description of the restriction and obligations of this Deed Notice that are in addition to those describe above, as follows:

- (A) General Description of this Deed Notice:
  - (1) Description and estimated size of the Restricted Areas as described above;
  - (2) Description of the restrictions on the Property by operation of this Deed Notice; and
  - (3) The objective of the restrictions.
- (B) Description of the monitoring necessary to determine whether:
  - (1) Any disturbances of the soil in the Restricted Areas did not result in the unacceptable exposure to the soil contamination;
  - (2) There have been any land use changes subsequent to the filing of this Deed Notice or the most recent biennial certification, whichever is more recent;
  - (3) The current land use on the Property is consistent with the restrictions in this Deed Notice;

(4) Any newly promulgated or modified requirements of applicable regulations or laws apply to the site; and

(5) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial certification:

(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) Land use at the Property is consistent with the restrictions in this Deed Notice; and

(3) The remedial action that includes this Deed Notice continues to be protective of the public health and safety and of the environment.

ii. Exhibit C-2: Asphalt Cap – Exhibit C-2 includes a narrative description of the asphalt cap as follows:

(A) General Description of the engineering control:

(1) Description of the engineering control;

(2) The objective of the engineering control; and

(3) How the engineering control is intended to function.

(B) Description of the operation and maintenance necessary to ensure that:

(1) Periodic inspections of each engineering control are performed in order to determine its integrity, operability, and effectiveness;

(2) Each engineering control continues as designed and intended to protect the public health and safety and the environment;

(3) Each alteration, excavation or disturbance of any engineering control is timely and appropriately addressed to maintain the integrity of the engineering control;

(4) This engineering control is being inspected and maintained and its integrity remains so that the remedial action continues to be protective of the public health and safety and of the environment;



necessary if it is not possible to visually evaluate the integrity/ performance of this engineering control; and

(6) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial

certification:


(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) The engineering controls continue to operate as designed; and

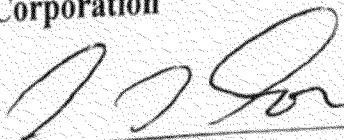
(3) The remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment.

Notice as of the date first written above.

TEST:

  
[Signature]  
JAMES G. Coraci (Secretary)  
[Print name and title (secretary)]

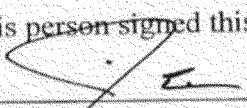
Norpak Corporation

By:   
[Signature]  
Anthony A. Coraci (President)  
[Print name and title (president/vice president)]

STATE OF NEW JERSEY SS:  
COUNTY OF ESSEX

I certify that on August 12, 2009, Anthony A. Coraci personally came before me,  
and this person acknowledged under oath, to my satisfaction, that:

- (a) this person is the President of Norpak Corporation, the corporation  
named in this document;
- (b) this person is the attesting witness to the signing of this document by the proper  
corporate officer who is the [president/vice president] of the corporation;
- (c) this document was signed and delivered by the corporation as its voluntary act and  
was duly authorized;
- (d) this person knows the proper seal of the corporation which was affixed to this  
document; and
- (e) this person signed this proof to attest to the truth of these facts.

  
[Signature]  
JAMES G. Coraci (Secretary)  
[Print name and title of attesting witness (secretary)]

Signed and sworn before me on August 12<sup>TH</sup>, 2009

  
\_\_\_\_\_, Notary Public

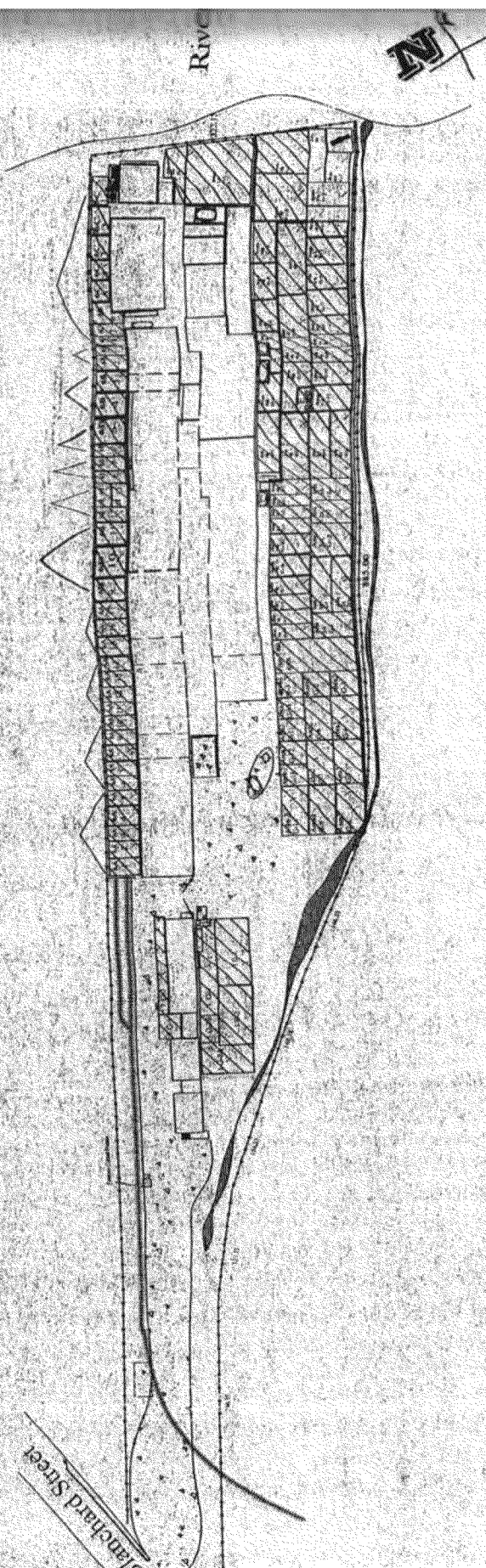
[Print name and title]  
**MIRIAM LIMA**  
**NOTARY PUBLIC OF NEW JERSEY**  
**MY COMMISSION EXPIRES AUG. 10, 2010**

For purposes of this deed notice, the entire property will be restricted.

The attached map indicates all soil sample locations and hatched areas indicate where institutional controls were installed, consisting of an engineered cover system composed of a 4" granular layer topped with a 4" asphalt cap, over all AOC's. The asphalt cover system eliminates the dermal and airborne exposure pathways. The cover system will also minimize rain water and surface water run-on and run-off from coming into contact with the impacted material.

Post remediation monitoring and care will include biennial inspection of all asphalt surfaces covering current AOC's for the existence of cracks, fissures, buckling, and for the general repair of the asphalt surface. This inspection will be conducted by DSC, Inc. personnel or an authorized representative. Should these inspections identify areas needing repair, such repairs will promptly be made.





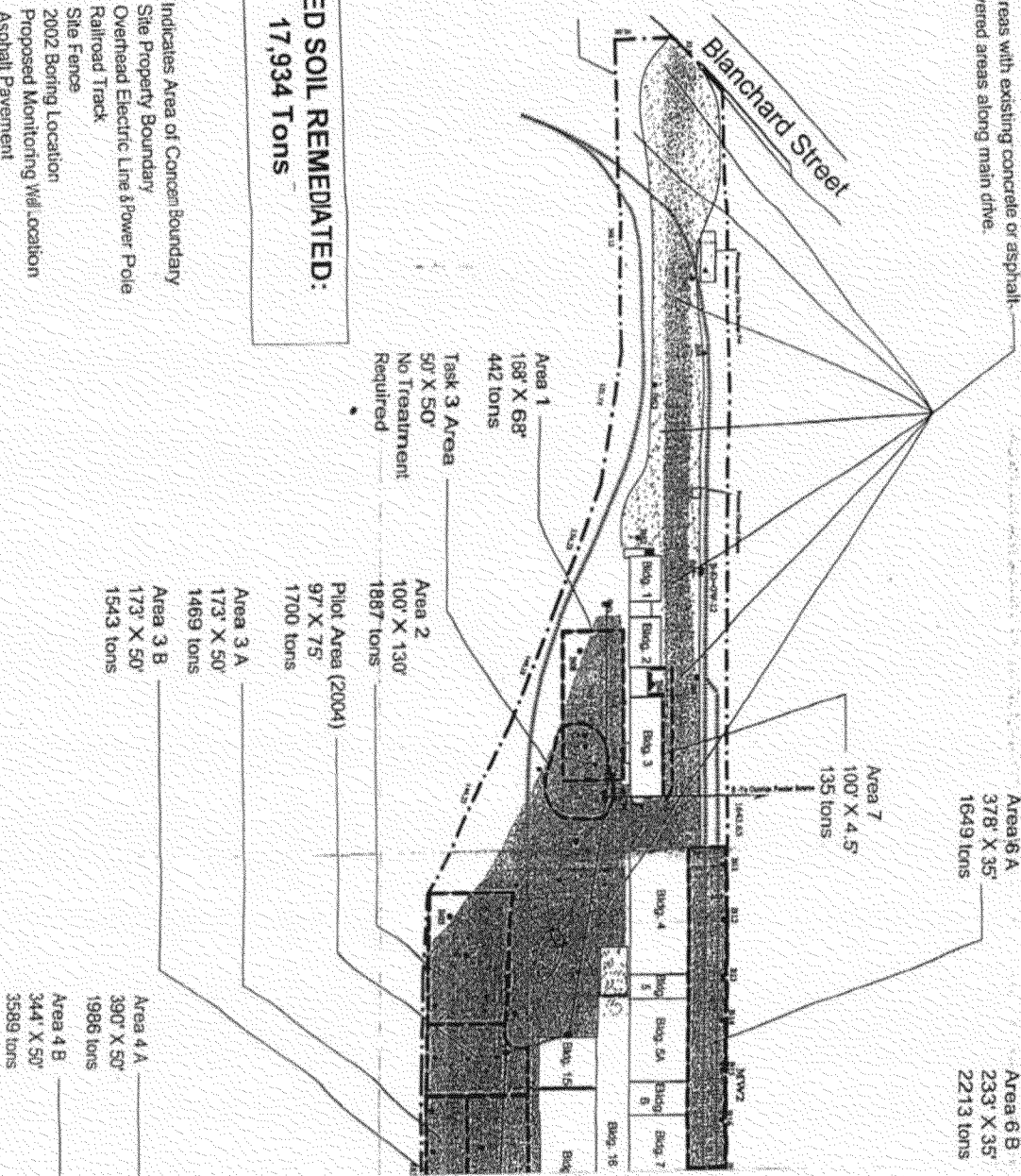
NORPAK CORPORATION  
 70 Blanchard Street  
 Newark, New Jersey 07105  
 Tel. (973) 589-4200  
 Fax (973) 578-8845  
 Figure B-1.0  
 Restricted Area Map  
 Areas Hatched above

sampled in areas with existing concrete or asphalt.  
 shown for soil covered areas along main drive.

# **IMPACTED SOIL REMEDIATED:** **17,934 Tons**

## **LEGEND:**

- Indicates Area of Concern Boundary
- Site Property Boundary
- Overhead Electric Line & Power Pole
- Railroad Track
- Site Fence
- 2002 Boring Location
- Proposed Monitoring Well location
- Asphalt Pavement





**RESTRICTED AREA DATA TABLE**

A separate table for each restricted area that includes: (A) sample location designation from Restricted Area map (Exhibit B-1); (B) sample elevation based upon mean sea level; (C) name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard; (D) the restricted and unrestricted use standards for each contaminant in the table; and (E) the remaining concentration of each contaminant at each sample location at each elevation.

Sample	Sample	Sample	Depth of Contamin.	CAS Number	Restricted Use Stand (ppm)	UnRestricted Use Stand (ppm)	Remaining Concent.
1	1 & 2	12	1	7439-92-1	600	400	2450
1	3 & 4	12	1	7439-92-1	600	400	490
2	1 & 3	11	2	7439-92-1	600	400	10500
2	4 & 6	11	2	7439-92-1	600	400	20500
2	7 & 9	11	2	7439-92-1	600	400	9480
2	10 & 12	12	2	7439-92-1	600	400	52500
2	13 & 14	12	2	7439-92-1	600	400	21900
3A	1 & 2 R	11	2	7439-92-1	600	400	10500
3A	3 & 4	11	2	7439-92-1	600	400	13600
3A	5 & 6	11	2	7439-92-1	600	400	2480
3B	1 & 4	12	4	7439-92-1	600	400	28500
3B	5 & 8	12	4	7439-92-1	600	400	32000
3B	9 & 10	12	4	7439-92-1	600	400	6700
4A	1 & 4	11	2	7439-92-1	600	400	2670
4A	5 & 8	11	2	7439-92-1	600	400	6510
4A	9 & 12	11	2	7439-92-1	600	400	5170
4A	13 & 14	11	2	7439-92-1	600	400	14400
4B	1 & 2	12	4	7439-92-1	600	400	3350
4B	3 & 6	12	4	7439-92-1	600	400	9940
4B	7 & 12	12	4	7439-92-1	600	400	22300
4B	13 & 14	12	4	7439-92-1	600	400	40500
5A	1	10	4	7439-92-1	600	400	5380
5B	1	10	6	7439-92-1	600	400	8330
6A	1	10	4	7439-92-1	600	400	21800
6A	2	10	4	7439-92-1	600	400	12600
6A	3	10	4	7439-92-1	600	400	35000
6A	4	10	4	7439-92-1	600	400	39200
6B	1	10	4	7439-92-1	600	400	43200
6B	2	10	4	7439-92-1	600	400	49800
6B	3	10	4	7439-92-1	600	400	24400
6B	4	10	4	7439-92-1	600	400	34800
6B	5	10	4	7439-92-1	600	400	34200
6B	6	10	4	7439-92-1	600	400	41000
6C	1	8	2	7439-92-1	600	400	26900
7	1	10	1	7439-92-1	600	400	4470

## DEED NOTICE AS INSTITUTIONAL CONTROL

The Department has approved a Deed Notice for the real property designated as Block 5001, Lot 58 on the tax map of the City of Newark, Essex County, New Jersey. The Property is approximately 7.5 acres and is bounded by Blanchard Street, the Passaic River, American Refuel of Essex County, and the Fairmont Chemical Company. The property includes multiple buildings and paved areas.

The Restricted Area encompasses the entire site, which will be restricted to non-residential use. Except in accordance with this Deed Notice, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs the engineering control at the Property. The objective of these restrictions is to prevent exposure to contaminated soil that remains at the Property.

The persons responsible for monitoring the protectiveness of this Deed Notice shall comply with the monitoring, maintenance, and biennial certification requirements of Paragraph 14C(i) of this Deed Notice.



EXHIBIT C-2  
ASPHALT CAP

The Department has approved a Deed Notice for the real property designated Block 5001, Lot 58 on the tax map of the City of Newark, Essex County, New Jersey. An asphalt cap (as shown in Exhibit B-1) has been approved as an adequate engineering control for the purpose of this Deed Notice.

The Restricted Area encompasses the entire site. Each Area of Concern in the Restricted Area has been capped by impervious surfaces consisting of four (4) inches of granular base material and four (4) inches of asphalt. This area is restricted due to the presence of lead and/or other contaminants (see Exhibit B-2 – Restricted Area Data Table) exceeding NJDEP's most stringent cleanup criteria.

Monitoring of the engineering control will consist of periodic inspections of the asphalt cap. The results of all inspections and maintenance and any disturbances of the engineering control will be documented in a log book, which will be made available to the Department upon request. Maintenance activities will be conducted as soon as practicable after discovery of any disturbances to the engineering control to ensure that the integrity of the engineering control is maintained. A certification shall be submitted to the NJDEP every two years, in accordance with N.J.A.C. 7:26E-8.4.

The persons responsible for monitoring the protectiveness of this engineering control shall comply with the monitoring, maintenance, and biennial certification requirements of Paragraph 14C(ii) of this Deed Notice.

S. CORZINE  
Governor

**State of New Jersey**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Case Management  
401 East State Street  
P.O. Box 028  
TRENTON, NJ 08646-0028  
Phone #: 609-633-1455  
Fax #: 609-633-1439

MARK N. MAURIELLO  
Acting Commissioner

Exhibit 6

Mr. A. A. Coraci  
President

DSC of Newark Enterprises, Inc.  
70 Blanchard Street  
Newark, NJ 07105

October 21, 2009

**Re: Conditional No Further Action Letter and Covenant Not to Sue with**

**Requirements for Biennial Certifications**

Remedial Action Type: Restricted Use for the Entire Site (Soils Only)

Norpak Corp

70 Blanchard St

Newark, Essex County

Program Interest #: 032503

Activity Number: RPC060001

Document Title: NORPAK CORP MAIN

Communications Center Number: 98-12-08-1534-57

Block # 5001 and Lot # 58

Dear Mr. Coraci:

Pursuant to N.J.S.A. 58:10B-13.1 and N.J.A.C. 7:26C, the New Jersey Department of Environmental Protection (Department) issues this Conditional No Further Action Letter and Covenant Not to Sue for the remediation of the site (Soils Only) specifically referenced above, so long as DSC of Newark Enterprises did not withhold any information from the Department. This action is based upon information in the Department's case file and DSC of Newark Enterprises' final certified report dated April 9, 2009. In issuing this Conditional No Further Action Letter and Covenant Not to Sue, the Department has relied upon the certified representations and information provided to the Department. To remain in compliance with the terms of this Conditional No Further Action Letter and to maintain the benefits of the Covenant Not to Sue, DSC of Newark Enterprises as well as each subsequent owner, lessee and operator must comply with the conditions noted below.

By issuance of this Conditional No Further Action Letter, the Department acknowledges the completion of a Preliminary Assessment, Site Investigation, and Remedial Action Report pursuant to the Technical Requirements for Site Remediation (N.J.A.C. 7:26E) for the Entire Site (Soils Only), and no other areas.

## **CONDITIONS**

Pursuant to N.J.S.A. 58:10B-120, DSC of Newark Enterprises and any other person who was liable for the cleanup and removal costs, and remains liable pursuant to the Spill Act, shall inform the Department in writing within 14 calendar days whenever its name or address changes. Any notices submitted pursuant to this paragraph shall reference the above case numbers and shall be sent to: Bureau of Case Assignment and Initial Notice - Case Assignment Section, P.O. Box 434, Trenton, N.J. 08625-0434.

DSC of Newark Enterprises as well as each subsequent owner, lessee and operator (collectively Successors) shall comply with each of the following:

### **Monitoring of Compliance for Institutional and Engineering Controls and Biennial Certifications**

Pursuant to N.J.S.A. 58:10B-13.1 and N.J.A.C. 7:26E-8, DSC of Newark Enterprises and the Successors shall conduct monitoring for compliance and effectiveness of the institutional and engineering controls specified in this document and submit written biennial certifications to the Department that the institutional and engineering controls are being properly maintained and continue to be protective of public health and safety and the environment. The biennial certifications are due every two (2) years on the date the institutional control was established. The first biennial certification following the issuance of this Conditional No Further Action Letter is due October 1, 2011. Any such certification shall include the information relied upon to determine that no changes have occurred.

### **Deed Notice (Institutional and Engineering Control)**

Pursuant to N.J.S.A. 58:10B-13a, DSC of Newark Enterprises and the Successors shall ensure that the Deed Notice filed on September 1, 2009 with the Essex County Registrar's office is complied with including maintenance of applicable engineering controls. The deed notice can be found at page # 74 in Book # 12215.

## **COVENANT NOT TO SUE**

The Department issues this Covenant Not to Sue (Covenant) pursuant to N.J.S.A. 58:10B-13.1. That statute requires a Covenant not to sue with each conditional no further action letter. However, in accordance with N.J.S.A. 58:10B-13.1, nothing in this Covenant shall benefit any person who is liable, pursuant to the Spill Compensation and Control Act (Spill Act), N.J.S.A. 58:10-23.11, for cleanup and removal costs and the Department makes no representation by the issuance of this Covenant, either express or implied, as to the Spill Act liability of any person.

The Department covenants, except as provided in the preceding paragraph, that it will not bring any civil action against:

- (a) the person who undertook the remediation;
- (b) subsequent owners of the subject property;



(c) subsequent lessees of the subject property, and

(d) subsequent operators at the subject property;

for the purposes of requiring remediation to address contamination which existed prior to the date of the final certified Report titled "Task Area 3, Soil Delineation and Groundwater Investigation" dated April 9, 2009 for the real property at the site identified above, payment of compensation for damages to, or loss of, natural resources, for the restoration of natural resources in connection with the discharge on the property, or payment of cleanup and removal costs for such additional remediation.

The person who undertook the remedial action, and each subsequent owner, lessee and operator, during that person's ownership, tenancy or operation, shall maintain all applicable engineering and institutional controls and conduct periodic compliance monitoring in the manner the Department requires.

Any person who benefits from this Covenant may be barred from making a claim against the Spill Compensation Fund, N.J.S.A. 58:10-23.11i, and the Sanitary Landfill Facility Contingency Fund, N.J.S.A. 13:1E-105, for any costs or damages relating to the remediation covered by this Covenant. All other claims against these funds will be controlled by the corresponding statutes and their implementing regulations.

Pursuant to N.J.S.A. 58:10B-13.1d, this Covenant does not relieve any person from the obligation to comply in the future with laws and regulations. The Department reserves its right to take all appropriate enforcement for any failure to do so.

The Department may revoke this Covenant at any time after providing notice upon its determination that:

- (a) any person with the legal obligation to comply with any condition in this Conditional No Further Action Letter has failed to do so;
- (b) any person with the legal obligation to maintain or monitor any engineering or institutional control has failed to do so; or
- (c) any person with the legal obligation to submit, on a biennial basis, a certification that the engineering and institutional controls are being properly maintained and continue to be protective of the public health and safety and of the environment has failed to do so.

This Covenant, which the Department has executed in duplicate, shall take effect immediately once the person who undertook the remediation has signed and dated the Covenant in the lines supplied below and the Department has received one copy of this document bearing original signatures of the Department and the person who undertook the remediation.

DSC of Newark Enterprises, Inc.

By: Joseph R. Lockwood

Signature: [Signature]

Title: Compliance Director

Dated: 10/23/09

NEW JERSEY DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

By: Roman S. Luzecky, Section Chief

Signature: [Signature]

Dated: 10/21/09

**NOTICES**

**Building Interiors Not Addressed**

Please be advised that the remediation that is covered by this Conditional No Further Action Letter does not address the remediation of hazardous substances that may exist in building interiors or equipment; including, but not limited to, radon, asbestos and lead. As a result, any risks to human health presented by any building interior or equipment remains. A complete building interior evaluation should be completed before any change in use or re-occupancy is considered.

Soils-Only NFA when Ground Water Contamination remains from that Area(s) of Concern or Site

This Conditional No Further Action Letter is for soils only for the referenced site. The Department has relied, in part, on the reported ground water data to support that soil contamination is no longer affecting ground water. Please be advised that if changes in future ground water data no longer support this conclusion, the Department reserves it rights to require additional soil remediation and possibly excavation.

**Direct Billing**

Please be advised that in accordance with the "Department Oversight of the Remediation of Contaminated Sites" (N.J.A.C. 7:26C), DSC of Newark Enterprises is required to reimburse the Department for oversight of the remediation. The Department will be issuing a bill within the next four months.

Thank you for your attention to these matters. If you have any questions, please contact Bhanuprasad Rao at (609) 292-9887.

Sincerely,



Roman S. Luzecky, Section Chief  
Bureau of Case Management

c. Marsha McGowan Newark Dept. of Health  
Robert Marasco, City Clerk Newark  
Essex Regional Health Commission, CEHA Agency  
Alan Motter, NJDEP BEERA  
Greg Rapp, NJDEP BGWPA  
Rob Hoch, NJDEP BOMM  
Nick Sodano NJDEP BISPS  
Joseph Lockwood - DSC of Newark Enterprises, Inc.  
Bhanuprasad Rao, Case Manager, NJDEP BCM



**SITE INSPECTION REPORT  
NORPAK CORPORATION  
NEWARK, ESSEX COUNTY, NEW JERSEY**

Attachment 1

**CERCLIS ID No. NJD056700487**

**VOLUME I OF II**

EPA Contract No.: 68-W-00-121  
W.O. No.: 20103.001.001.1119.00  
Document Control No.: SAT.20103.1119.949

July 2005

Prepared for:  
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Prepared by:  
**Region II Site Assessment Team**  
Weston Solutions, Inc.  
Edison, New Jersey 08837



**SITE INSPECTION REPORT  
NORPAK CORPORATION  
NEWARK, ESSEX COUNTY, NEW JERSEY**

**CERCLIS ID No. NJD056700487**

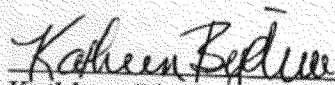
Prepared by:  
**Region II Site Assessment Team**  
Weston Solutions, Inc.  
Edison, New Jersey

Prepared for:  
**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

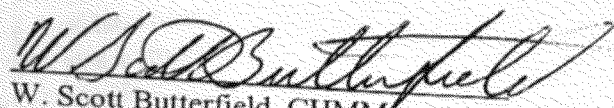
EPA Contract No.: 68-W-00-121  
W.O. No.: 20103.001.001.1119.00  
Document Control No.: SAT.20103.1119.949

July 2005

SUBMITTED BY:

  
Kathleen Bigelow  
SAT Project Manager

Date 7/27/05

  
W. Scott Butterfield, CHMM  
SAT Program Manager

Date 7/27/05

## SITE SUMMARY

The Norpak Corporation (Norpak) site (CERCLIS ID No. NJD056700487) is an active, paper converting company located at 70 Blanchard Street, Newark, New Jersey (Ref. 1, p. 1; 16, pp. 1, 3; 18; 20, p. 6). The site is situated in an industrial park, in a heavily industrial area and is identified by the Newark Tax Assessor's Office as Block 5001, Lot Number 58 (Ref. 6, pp. 16, 17; 18). The site is bound to the north by the Passaic River; to the south east by industrial properties; to the west by Blanchard Street. The Norpak site encompasses approximately 7.5 acres (Ref. 18; 20, p. 5). The property is currently owned by D.S.C. of Newark Enterprises, Incorporated (DSC), whose administrative offices are located on the site property (Ref. 20, pp. 1 through 7).

According to available background information, the Picher Lead Company acquired the property in 1915 and began construction of a manufacturing facility in 1916. Picher Lead Company merged into The Eagle-Picher Lead company, and subsequently The Eagle-Picher Company (Eagle-Picher). The property was owned and operated by Eagle-Picher as a lead smelting and lead-oxide manufacturing plant until 1956 (Ref. 20, pp. 5, 6, 9). Norpak (first known as Sterling Roto-Gravure, then subsequently Protective Packaging Incorporation of New Jersey, Eastern Colortype Company, and Newark Paraffine Paper Company) began operations at the site in 1956 after the property was purchased from the Eagle-Picher Lead Company (Ref. 20, pp. 9, 10). Current operations at the site include the conversion of paper, which entails waxing, laminating and applying foil to rolls of paper. Printing operations are also conducted at the site (Ref. 5, p. 3; 6, pp. 1, 2; 16, p. 18; 20, pp. 6 through 10).

The current owner of the property, DSC, acquired the property from Norpak in 1976; however, Norpak and DSC are owned by the same share holders. Norpak is considered to be a subsidiary and tenant of DSC (Ref. 4, p. 5; 20, pp. 5, 6; 25). Norpak currently uses 90 percent of the usable on-site land and buildings, while tenants occupy the remaining 10 percent. The tenants currently occupying space on the property are American By-Products, Tri-County Forklift, and U.S. Spray Finishing Company, Incorporated. American By-Products received waste vegetable oil from restaurants to separate water from the waste oil. They ceased operations in 1999, but are still a tenant at the property. Tri-County Forklift, Inc. is engaged in the wholesale distribution of industrial machinery and equipment. U.S. Spray Finishing Co., Inc. is a metal finishing company, that coats (e.g. enamel, lacquer and varnish) metal products such as cow bells and gym lockers, and are the only tenant reporting the use of hazardous chemicals in their processes. According to available background information, they are a small quantity generator (SQG) and have no current violations associated with their operations (Ref. 5, pp. 3 through 6; 20, pp. 6 through 10).

Norpak filed a Notification of Hazardous Waste Activity with the USEPA on August 4, 1980. On November 14, 1980 Norpak filed a Hazardous Waste Permit Application as a Treatment, Storage and Disposal (TSD) facility for the storage of hazardous waste containers. The facility was delisted as a TSD and classified as a generator only in March 1983, due to the fact that waste is not stored on site for more than 90 days. Norpak was also assigned a plant identification number for the purposes of air pollution control monitoring. This number (05116) was originally assigned to the Newark Paraffine Paper Company and was reassigned to Norpak in March 1981 (Ref. 6, pp. 3 through 5; 20, pp. 1294, 1295).



## SITE SUMMARY (continued)

Available background information indicates that Norpak has utilized the following materials on site: mineral spirits, ethyl acetate, n/p acetate (n-propyl acetate), butyl acetate, n/p alcohol (1-propanol), methanol, ethylene glycol, No. 4 fuel oil, No. 2 fuel oil, propane, oxygen, inks, motor oils, and acetylene (Ref. 6, p. 2; 20, p. 1288). The following waste codes were referenced in their RCRA 3010 submission: K086 (solvent wastes and sludges), U112 (ethyl acetate), U154 (methanol), and U220 (toluene) (Ref. 6, pp. 21, 24; 7, p. 32). Currently, solvents are used to clean printing press components and are the source of hazardous waste generated at the site. Used solvents are piped into a digester and heated to evaporate water. According to the site environmental manager, this produces emissions that are grandfathered in to existing air permits and therefore are un-permitted. The resulting sludge is stored in drums indoors and disposed as hazardous waste (Ref 5, pp. 3, 4).

According to a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), Norpak has had several on-site spills and received several Notices of Violation (NOV). The earliest documented spill was cited on March 15, 1988, and resulted from a New Jersey Department of Environmental Protection (NJDEP) site inspection. It was noted at this time that overturned drums were releasing ink, which was seeping through the wall and door of the building onto the surrounding ground. Drums on the exterior of the building were observed to be leaking an epoxy type resin material. Two railroad cars with heavy staining underneath were noted adjacent to the building. A follow up inspection on April 21, 1988 revealed two additional minor spills on the eastern portion of the site. Norpak received five NOVs and two Administrative Orders and Notice of Civil Administration Penalty Assessments (Ref. 6, pp. 2 through 5, 112 through 124).

In January 1991, Eagle-Picher filed a petition for relief under Chapter 11, Title 11, of the United States Code in the United States Bankruptcy Court for the Southern District of Ohio. DSC filed a proof of claim in Eagle-Picher's bankruptcy proceedings asserting a contingent, unsecured, and liquidated claim for future environmental remedial costs (Ref. 20, p. 10).

In 1993, INTEX Environmental, Incorporated/ENSA Environmental, Incorporated was retained by DSC to provide an evaluation of environmental conditions at the property. Specifically the focus was the presence of heavy metals resulting from Eagle-Picher's prior operations at the site (Ref. 20, p. 10). Portable X-ray fluorescence (XRF) analysis and soil sampling were conducted. The XRF survey revealed the presence of lead ranging from 580 parts per million (ppm) to greater than 20,000 ppm in exterior soils. Interior sampling provided lead levels ranging from 4,442 ppm to greater than 10,000 ppm. Additional sampling and delineation of lead contamination was recommended in the resulting report (Ref. 20, pp. 10, 11, 20 through 105, 215 through 437, 1297 through 1334).

In 1994 Norpak and DSC entered into a Memorandum of Agreement (MOA) with NJDEP (Ref. 20, pp. 11, 1265 through 1270). As part of the process, a consultant was retained to perform a Preliminary Assessment (PA). A PA was completed in May of 1995, and indicated that areas of environmental concern exist on the property (Ref. 20, p. 11). Additional sampling occurred in 1998 to analyze the extent of polychlorinated biphenyls in transformer oil of three active and three inactive on-site transformers. No concentrations in excess of the regulatory limit of 50 ppm were found (Ref. 20, p. 11).

## SITE SUMMARY (continued)

In late 1998, an Underground Storage Tank (UST) removal and soil quality investigation was conducted at the Norpak site (Ref. 20, pp. 11, 15 through 19, 1376 through 1378). There is conflicting information regarding the size of the tank; it is referenced in several documents as having a volume of 1000 gallons and 2000 gallons. Because the tank was registered with the State of New Jersey as having a 2000-gallon capacity, it will be evaluated as such (Ref 20, pp 1359 through 1379). The 2000-gallon tank had been used to store leaded and unleaded gasoline, and according to available background information, had been installed prior to 1956. On December 8, 1998, the tank was emptied via vacuum truck; 990 gallons of sludge and residual product were removed from the tank and recycled by Lorco Petroleum. The tank was excavated and disposed at Boro-recycling of Middlesex, New Jersey. Soils adjacent to the tank were suspected to be contaminated with petroleum product; staining and odor were noted at the time of tank excavation, and a sheen was noted on groundwater that had seeped into the excavation. NJDEP was notified of spill activity (Ref. 20, pp. 11, 15 through 19). Soil samples were collected to determine the extent of soil contamination resulting from the former UST; six samples were collected and analyzed for Volatile Organic Analytes (VOAs) and ten tentatively identified compounds (TICs), as well as one sample to be used for waste characterization for disposal purposes (Ref. 7, pp. 23, 24; 20, pp. 11, 15 through 19, 1358 through 1379).

Additional sampling and analysis for lead occurred in 1999 and 2002, as part of an effort to delineate the horizontal and vertical extent of lead contamination in site soils, and any resulting impacts to site groundwater (Ref. 20, pp. 11, 12). Groundwater seeps located on the banks of the Passaic River were not found to contain lead; however, water samples collected from on-site soil borings were found to contain lead in excess of the NJDEP groundwater quality criteria (Ref. 20, pp. 11, 1336 through 1357). Sampling in 2002 was conducted as part of a Site Investigation (SI) report. Seventy-five soil borings were performed to complete the delineation of lead contamination in soil and groundwater on the property. Samples were also analyzed for VOAs using an on-site mobile lab (Ref. 20, p.12).

In December 2000, Norpak and DSC entered into an Environmental Remediation and Settlement Agreement as part of a law suit associated with Eagle-Picher's petition for relief in bankruptcy court. An agreement was signed on May 24, 2001. Eagle-Picher was required to participate administratively and financially in the investigation and remediation of contamination resulting from, in whole or part, Eagle-Picher's past operations at the site.

On 6 April 2005, the Region 2 Site Assessment Team (SAT) conducted an on-site reconnaissance of the Norpak site (Ref 5). Observations made by Region 2 SAT indicate that the site is currently active. Norpak and several tenants occupy the property. On-site structures appear to be in good condition. No monitoring wells were observed on or around the site. The site is located in a heavily industrial area; there are no residences, schools, or day care centers within 200 feet of the site boundaries. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the site; storm water is discharged into the Passaic River. For the purposes of this report, this confluence is being considered the Probable Point of Entry for the surface water pathway evaluation. (Ref. 5, pp. 1 through 6).



## SITE SUMMARY (continued)

In late 1998, an Underground Storage Tank (UST) removal and soil quality investigation was conducted at the Norpak site (Ref. 20, pp. 11, 15 through 19, 1376 through 1378). There is conflicting information regarding the size of the tank; it is referenced in several documents as having a volume of 1000 gallons and 2000 gallons. Because the tank was registered with the State of New Jersey as having a 2000-gallon capacity, it will be evaluated as such (Ref. 20, pp. 1359 through 1379). The 2000-gallon tank had been used to store leaded and unleaded gasoline, and according to available background information, had been installed prior to 1956. On December 8, 1998, the tank was emptied via vacuum truck; 990 gallons of sludge and residual product were removed from the tank and recycled by Lorco Petroleum. The tank was excavated and disposed at Boro-recycling of Middlesex, New Jersey. Soils adjacent to the tank were suspected to be contaminated with petroleum product; staining and odor were noted at the time of tank excavation, and a sheen was noted on groundwater that had seeped into the excavation. NJDEP was notified of spill activity (Ref. 20, pp. 11, 15 through 19). Soil samples were collected to determine the extent of soil contamination resulting from the former UST; six samples were collected and analyzed for Volatile Organic Compounds (VOAs) and ten tentatively identified compounds (TICs), as well as one sample to be used for waste characterization for disposal purposes (Ref. 7, pp. 23, 24; 20, pp. 11, 15 through 19, 1358 through 1379).

Additional sampling and analysis for lead occurred in 1999 and 2002, as part of an effort to delineate the horizontal and vertical extent of lead contamination in site soils, and any resulting impacts to site groundwater (Ref. 20, pp. 11, 12). Groundwater seeps located on the banks of the Passaic River were not found to contain lead; however, water samples collected from on-site soil borings were found to contain lead in excess of the NJDEP groundwater quality criteria (Ref. 20, pp. 11, 1336 through 1357). Sampling in 2002 was conducted as part of a Site Investigation (SI) report. Seventy-five soil borings were performed to complete the delineation of lead contamination in soil and groundwater on the property. Samples were also analyzed for VOAs using an on-site mobile lab (Ref. 20, p. 12).

In December 2000, Norpak and DSC entered into an Environmental Remediation and Settlement Agreement as part of a law suit associated with Eagle-Picher's petition for relief in bankruptcy court. An agreement was signed on May 24, 2001. Eagle-Picher was required to participate administratively and financially in the investigation and remediation of contamination resulting from, in whole or part, Eagle-Picher's past operations at the site.

On 6 April 2005, the Region 2 Site Assessment Team (SAT) conducted an on-site reconnaissance of the Norpak site (Ref. 5). Observations made by Region 2 SAT indicate that the site is currently active. Norpak and several tenants occupy the property. On-site structures appear to be in good condition. No monitoring wells were observed on or around the site. The site is located in a heavily industrial area; there are no residences, schools, or day care centers within 200 feet of the site boundaries. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the site; storm water is discharged into the Passaic River. For the purposes of this report, this confluence is being considered the Probable Point of Entry for the surface water pathway evaluation. (Ref. 5, pp. 1 through 6).



### SITE SUMMARY (continued)

Observations made by Region 2 SAT during the on-site reconnaissance indicate that there are no obvious signs of contamination (i.e. stained soil or stressed vegetation). However, available background information details the presence of lead-contaminated on-site soils (Ref. 5, pp. 3 through 20, pp. 10 through 12). The majority of the site is paved with areas of compacted soil and vegetation; there did not appear to be any terrestrial sensitive environments or resource use of soil within 200 feet of the site (Ref 5).

Although there is suspected groundwater contamination, there are no potable wells within the site's 4-mile target distance limit (Ref. 11; 16, p.14). The nearest surface water target is the Passaic River, which is a fishery adjacent to the northern boundary of the site (Ref. 5; 12; 16, p. 11 through 16; 24; 25). There are no potable surface water intakes within 15 miles of the probable point of entry to surface water (Ref. 22). Based on the fact that the site is located in a heavy industrial area, documenting a release of contaminants attributable to potential releases from the Norpak site to groundwater or surface water is unlikely. (Ref. 5; 7, pp. 3 through 12; 10; 25).

Identify the types of waste sources (e.g., landfill, surface impoundment, piles, stained soil, above- or below-ground tanks or containers, land treatment, etc.) on site. Initiate as many waste unit numbers as needed to identify all waste sources on site.

(a) Waste Sources

Waste Unit No.	Waste Source Type	Facility Name for Unit
1	Contaminated Soil	Contaminated Soil
2	Drums	Spent Solvent

b) Other Areas of Concern

According to a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), Norpak has had several on-site spills and received several Notices of Violation (NOV). The earliest documented spill was cited on March 15, 1988, and resulted from a New Jersey Department of Environmental Protection (NJDEP) site inspection. It was noted at this time that overturned drums were releasing ink, which was seeping through the wall and door of the building onto the surrounding ground. Drums on the exterior of the building were observed to be leaking an epoxy type resin material. Two railroad cars with heavy staining underneath were noted adjacent to the building. A follow up inspection on April 21, 1988 revealed two additional minor spills on the eastern portion of the site.

Ref. 6, pp. 1 through 5, 38 through 144; 16, pp. 4 through 12.

5. Describe the regulatory history of the site, including the scope and objectives of any previous response actions, investigations and litigation by State, Local and Federal agencies (indicate type, affiliation, date of investigations).

- **Notification of Hazardous Waste Activity** - Filed by Norpak on August 5, 1980, stating that hazardous waste activity on site would consist of generation and transportation. The notification was acknowledged by USEPA on August 9, 1980. (Ref. 16, pp. 31 through 46)
- **Administrative Order** - Issued by the NJDEP Division of Environmental Quality on March 15, 1981. The violation resulted from a failure to submit a plan to achieve compliance, including permits and certificates for source operations relating to volatile organic substances (Ref. 20, pp. 1294, 1295).
- **Administrative Order** - Issued by the NJDEP Division of Environmental Quality on February 15, 1985 for and exceedance of emission from printing operations (Ref. 20, pp. 1294, 1295).



**Administrative order** - Issued by the NJDEP Division of Environmental Quality on November 17, 1986 for failing to obtain necessary permit(s) and certificates to construct, install or alter control apparatus or equipment. (Ref. 20, pp. 1294, 1295).

**Notice of Violation** - Issued by NJDEP Division of Hazardous Waste Management on March 15 and April 21, 1988 for alleged violations of the Solid Waste Management Act. Violations included: failure to properly segregate, label and inspect hazardous waste containers; failure to provide personnel training; handling hazardous waste in a manner which causes unauthorized discharge of pollutants; failure to securely close hazardous waste containers; failure to provide handling instructions on manifests; failure to operate a facility in a manner that minimizes the possibility of a release of hazardous waste; and, failure to maintain a contingency plan (Ref. 6, pp. 38 through 144; 20, pp. 1294, 1295).

- **Preliminary Assessment** - completed for USEPA by NUS Corporation, Superfund Division on September 1, 1988, which recommended a Site Inspection be initiated under Comprehensive Environmental Response Compensation Recovery Act (CERCLA) (Ref. 16).

- **Memorandum of Agreement (MOA)** - Norpak entered into a MOA with NJDEP on July 14, 1994, under which it was agreed that a Preliminary Assessment (PA), Site Investigation (SI), Remedial Investigation (RI) report, and a Remedial Action report would be completed by Norpak (Ref. 20, pp. 11, 1265 through 1270)

- **Preliminary Assessment** - A PA report was completed by ENSA Environmental, Inc. On behalf of Norpak under the MOA with NJDEP (Ref. 20, pp. 1273 through 1309).

- **Site Inspection** - An SI was completed by D.S.C. of Newark Enterprises, Inc. On behalf of Norpak under the MOA with NJDEP. Extensive sampling was performed to determine the horizontal and vertical extent of lead and VOA contamination in site soils and groundwater (Ref. 20).

a) Is the site or any waste source subject to Petroleum Exclusion? Identify petroleum products and by products that justify this decision.

A former 2000-gallon UST was used at the site to store gasoline. Although the tank is no longer present, the gasoline is subject to Petroleum Exclusion. A 10,000-gallon above ground tank is present at the site and used for storage of number 2 fuel oil for use in site boilers. Several drums containing waste oil from the maintenance of forklifts are stored on site inside the Norpak building. These products are subject to Petroleum Exclusion.

Ref. 5, pp. 1 through 6; 6, pp. 15, 1358 through 1379.



- b) Has normal farming application of pesticides registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) occurred at the site? Have pesticides been produced or stored at the site? Have there been any leaks or spills of pesticides on site?

Based on available background information, the site is not known to have been used for agricultural purposes. According to an Environmental Resource Data Prior Use Report, the Norpak property has been used for industrial purposes.

Ref. 7; 16.

- c) Is the site or any waste source subject to RCRA Subtitle C (briefly explain)?

On August 5, 1980 Norpak filed an Notification of Hazardous Waste Activity application with the United States Environmental Protection Agency. On November 14, 1980 Norpak filed a RCRA part A application stating they would treat, store or dispose (TSD) of hazardous waste at the facility. On March 3, 1983, NJDEP, Division of Waste Management, Bureau of Hazardous Waste Engineering delisted Norpak as a TSD and assigned them a Small Quantity generator (SQG) status. Norpak does not store waste on site for longer than 90 days. The site is currently active, and hazardous waste is produced from the cleaning of printing press rollers. Therefore, the site and spent solvent generated in the printer roller cleaning is currently subject to RCRA Subtitle C.

Ref. 5; 6, pp. 1 through 5, 18 through 25; 16, pp. 4 through 12, 31 through 33.

- d) Is the site or any waste source maintained under the authority of the Nuclear Regulatory Commission (NRC)?

Neither the site nor any waste source is maintained under the authority of the NRC.

Ref. 6; 16.

16. Do any conditions exist on site which would warrant immediate or emergency action?

During the off-site reconnaissance conducted by Region 2 SAT on 6 April 2005, no conditions were noted which would warrant immediate or emergency action.

Ref. 5.

Information available from:

Contact James Desir Agency U.S. EPA Telephone No.: (212) 637-4342  
Preparer Kathleen Bigelow Agency Region 2 SAT Date: July 2005

## PART II: WASTE SOURCE INFORMATION

For each of the waste units identified in Part I, complete the following items.

Waste Unit	<u>1</u>	<u>Contaminated Soil</u>
Waste Type		
<input type="checkbox"/> Landfill		<input checked="" type="checkbox"/> Contaminated Soil
<input type="checkbox"/> Surface Impoundment		<input type="checkbox"/> Pile
<input type="checkbox"/> Drums		<input type="checkbox"/> Land Treatment
<input type="checkbox"/> Tanks/Containers		<input type="checkbox"/> Other

### Description:

Describe the types of containers, impoundments, or other storage systems (i.e., concrete - lined surface impoundments) and any labels that may be present.

This waste unit consists of contaminated soil associated with former lead smelting operations on site. No containers, impoundments or other storage systems are associated with this waste source contamination.

Ref. 20, pp. 6 through 11.

Describe the physical condition of the containers or storage systems (i.e., rusted and/or bulging drums).

No containers, impoundments or other storage systems are associated with this waste source contamination.

Ref. 20, pp. 6 through 11.



scribe any secondary containment that may be present (e.g., drums on concrete pad in building aboveground tank surrounded by berm).

There is no known secondary containment associated with the contaminated soil.

Ref. 20, pp. 6 through 11.

#### **Hazardous Waste Quantity**

According to a 2002 SI conducted under the 1994 MOA with NJDEP, approximately 22,829 cubic feet of soil have been impacted by lead.

Ref. 20, p. 11.

#### **Hazardous Substances/Physical State**

Lead detected in site soils were probably deposited in solid form during previous smelting operations at the site.

Ref. 20, p.10.

Waste Unit

2

Drums

Resource Type

       Landfill

       Surface Impoundment

  X   Drums

       Tanks/Containers

       Contaminated Soil

       Pile

       Land Treatment

       Other

Description:

Describe the types of containers, impoundments, or other storage systems (i.e., concrete - lined surface impoundments) and any labels that may be present.

This waste unit consists of spent solvent sludge stored in plastic 55-gallon drums in the mixing room area of the Norpak building for less than 90 days. Drums are labeled with the type of solvent and starting date from which they were collected.

Ref. 5

2. Describe the physical condition of the containers or storage systems (i.e., rusted and/or bulging drums).

The containers were noted to be in good condition; no rusting, bulging or leaking was noted at the time of the on-site reconnaissance..

Ref. 5.

3. Describe any secondary containment that may be present (e.g., drums on concrete pad in building or aboveground tank surrounded by berm).

Drums are stored on pallets in the mixing room of the Norpak building. The mixing room located in the northeast portion of the building and also contains ink mixing equipment, a digester to evaporate water from spent solvent and associated piping. This room has a concrete floor with no signs of cracking or other damage.

Ref. 5.

### **Hazardous Waste Quantity**

Several drums were noted to be in the mixing room at the time of the reconnaissance. Norpak is a small quantity generator, and does not store hazardous waste on site for more than 90 days.

Ref. 5.

### **Hazardous Substances/Physical State**

The spent solvent is pumped from the printing room into a digester in the mixing room where it is heated with a coil to evaporate water. The resulting solvent waste is a sludge.

Ref. 5.



### **RT III: EXISTING ANALYTICAL DATA**

Existing soil and groundwater analytical data to characterize and evaluate the extent of contamination at the Norpak site were available from several sources and include a 1993 XRF metals evaluation, a 1999 soil and groundwater sampling event, and a 2002 SI conducted under a 1994 OA between Norpak and NJDEP. Analytical results from these events are summarized and presented in the following sections.

#### **XRF Metals Survey/Environmental Assessment(1993)**

In 1993, INTEX Environmental Incorporated was retained by DSC to evaluate the presence of heavy metals, specifically lead, at the Norpak site. A portable x-ray fluorescence (XRF) analyzer was used to screen site soils, as well as portions of the interior of the building. 84 locations were screened using the XRF analyzer, with locations sampled at various depths (0 to 6 inches below ground surface). Subsequently, soil from 5 of the 84 locations was sent to Laboratory Resources, Inc. for confirmatory analysis. Samples were analyzed for lead, cadmium and zinc.

The XRF survey indicated the presence of lead in site soils ranging from 580 parts per million (ppm) to greater than 20,000 ppm (the detection limit of the device was noted to be 10,000) in site soils. Interior sampling revealed concentrations of lead ranging from 4,442 ppm to greater than 10,000 ppm. (Ref. 13, pp. 16-17). Laboratory analysis confirmed the presence of the aforementioned metals in site soils. Cadmium and zinc were not detected above NJDEP clean-up action levels for industrial sites. According to the report, lead concentrations on the site were noted to be indicative of an emission source of lead at the facility and ranged from 1,750 milligrams per kilogram (mg/kg) to 12,300 mg/kg (Ref. 20, pp. 10, 1311 through 1315).

#### **UST Closure Soil Sampling Activities (1998)**

In December 1998, a Underground Storage Tank (UST) removal and soil quality investigation was conducted at the Norpak site. The 1000-gallon tank had been used to store leaded and unleaded gasoline, and according to available background information, had been installed prior to 1956. On December 8, 1998, the tank was emptied via vacuum truck; 990 gallons of sludge and residual product were removed from the tank and recycled by Lorco Petroleum. The tank was excavated and disposed at Boro-recycling of Middlesex, New Jersey. Soils adjacent to the tank were suspected to be contaminated with petroleum product; staining and odor were noted at the time of tank excavation, and a sheen was noted on groundwater that had seeped into the excavation. NJDEP was notified of spill activity.

Soil samples were collected to determine the extent of soil contamination resulting from the former UST; six samples were collected and analyzed for Volatile Organic Analytes (VOAs) and ten tentatively identified compounds (TICs), as well as one sample to be used for waste characterization for disposal purposes. Detections of xylene, ethylbenzene, cis-1,2-Dichloroethene, toluene, chloroform and benzene were noted; two samples revealed concentrations of analytes, specifically benzene and trichloroethene, above NJDEP's Impact to Groundwater Soil Clearance Criteria (IGWSCC) (Ref. 20, pp. 11, 15, 1358 through 1378).

### **Geoprobe Soil/Groundwater Sampling (1999)**

Retained MEI Environmental to perform additional sampling at the site to formulate a remedial estimate associated with lead contamination at the site. Fourteen soil samples were collected at depths between 0.5 and 3 feet below ground surface and analyzed for TCLP lead. Five water samples were collected. One was analyzed for total lead and three were analyzed for dissolved lead. Majority of the samples indicated concentrations of leachable lead above 5.0 ppm. Water samples collected from groundwater seeps into the Passaic River were not found to contain lead; however, water samples collected from soil borings were found to contain lead in excess of NJDEP groundwater clean-up criteria.

Based on soil data resulting from this sampling event, MEI concluded that approximately 22,829 square yards of lead impacted soils are on the property (Ref. 20, pp. 11, 1340 through 1357).

### **Investigation Geoprobe Soil and Groundwater Sampling Activities (January 2002)**

Following a 1999 sampling event to evaluate lead contamination in site soils, an SI was conducted at the Norpak site to vertically and horizontally delineate the extent of lead and VOA contamination on the site. 75 Geoprobe borings were advanced throughout the site property. Soils were analyzed using an on-site mobile lab (XL-700 Series spectrum analyzer) for VOA and lead analysis. Groundwater samples were also collected at this time and sent to an off site laboratory for analysis. Analytical results of soil samples collected during the Site Investigation are summarized in Appendix A of the DSC Site Investigation Report (Ref. 20, pp. 12, 21 through 451).



## PART IV: HAZARD ASSESSMENT

### GROUNDWATER ROUTE

**Describe the likelihood of a release of contaminant(s) to the groundwater as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence and relationship to background.**

Analytical results from groundwater samples collected from temporary on-site monitoring wells indicate the presence of concentrations of lead above the groundwater quality standards. Although groundwater is apparently impacted from previous site operations, there are no potable wells within the site's 4-mile target distance limit. Norpak and NJDEP are currently working toward an agreement on a remediation strategy which will include the in-situ stabilization of lead in the soil.

Ref. 11; 20, pp. 11, 1265 through 1270, 1181 through 1263; 23.

**Describe the aquifer of concern; include information such as depth, thickness, geologic composition, areas of karst terrain, permeability, overlying strata, confining layers, interconnections, discontinuities, depth to water table, groundwater flow direction.**

The aquifer of concern for the Norpak site is the Passaic Formation, formerly known as the Brunswick Formation. The Passaic Formation consists of thin-bedded shales, mudstones, and sandstones; the thickness is unknown, but is believed to exceed 6,000 feet. The upper 300 to 500 feet is most often utilized for water supply. The permeability of the bedrock is  $10^{-5}$  to  $10^{-7}$  centimeters per second (cm/sec). The Passaic Formation is overlain by Pleistocene deposits of glacial origin. These deposits consist of an unconsolidated, unstratified, heterogeneous mixture of clay, boulders, and sand (i.e., till); and, stratified glacial drift, which is composed of sand and gravel. The thickness of these deposits in the area of the site is estimated to be 50 feet. The estimated permeability of the overburden is  $10^{-4}$  to  $10^{-6}$  centimeters per second (cm/s). The depth to groundwater in the area of the site is approximately 4 feet.

Groundwater in the Passaic Formation occurs in a network of interconnected openings formed along joints and fractures and generally flows northeastward, while groundwater in the surficial deposits flows eastward. Specific site geology is unknown, but well records for nearby wells indicate that the depth to water table is 15 feet. Hydraulic conductivity may exist between the overlying strata and bedrock due to lack of a confining layer. For the purposes of this report, the surficial deposits and the Passaic Formation together will be considered the aquifer of concern due to the lack of a confining layer and the presence of similar component permeability ranges.

Ref. 16, pp. 82 through 110; 20, p.14; 21.



**What is the depth from the lowest point of waste disposal/storage to the highest seasonal level of the saturated zone of the aquifer of concern?**

Analytical results from groundwater samples collected from on-site monitoring wells indicate that contaminants attributable to the site have migrated to groundwater. Therefore, the depth from the lowest point of waste disposal/storage to the highest seasonal level of the aquifer of concern is 0 feet.

Ref. 20, p.11.

**What is the permeability value of the least permeable continuous intervening stratum between the ground surface and the top of the aquifer of concern?**

The permeability value of the least permeable continuous intervening stratum between the ground surface and the top of the aquifer of concern, the surficial glacial till deposits, ranges from  $10^{-4}$  to  $10^{-6}$  cm/s.

Ref. 2, p. 4.

**5. What is the net precipitation at the site (inches)?**

The net precipitation at the site ranges from 15 to 30 inches.

Ref. 2, p. 2.

**6. What is the distance to and depth of the nearest well that is currently used for drinking purposes?**

Available background information indicates that the nearest well currently used for drinking purposes is outside of the 4-mile target distance limit.

Ref. 11; 23.

**7. If a release to groundwater is observed or suspected, determine the number of people that obtain drinking water from wells that are documented or suspected to be actually contaminated by hazardous substance(s) attributed to an observed release from the site.**

There are no potable wells within the site's 4-mile target distance limit.

Ref. 11; 23.

**Identify the population served by wells located within 4 miles of the site that draw from the aquifer of concern.**

<u>Distance</u>	<u>Population</u>
0 - ¼ mile	0
>¼ - ½ mile	0
>½ - 1 mile	0
>1 - 2 miles	0
>2 - 3 miles	0
>3 - 4 miles	0

There are no potable wells within the site's 4-mile target distance limit.

Ref. 11; 23.

**State whether groundwater is blended with surface water, groundwater, or both before distribution.**

No people are known to be served by drinking water wells within a 4-mile radius of the site.

Ref. 23.

**Is a designated wellhead protection area within 4 miles of the site?**

There are no designated wellhead protection areas (WHPAs) within 4 miles of the site.

Ref.11; 23.

**Does a waste source overlie a designated or proposed wellhead protection area? If a release to groundwater is observed or suspected, does a designated or proposed wellhead protection area lie within the contaminant boundary of the release?**

A waste source does not overlie a designated or proposed WHPA, nor does a WHPA lie within the contaminant boundary of the suspected release.

Ref.11; 23.

Identify one of the following resource uses of groundwater within 4 miles of the site (i.e., commercial livestock watering, ingredient in commercial food preparation, supply for commercial aquaculture, supply for major, or designated water recreation area, excluding drinking water use, irrigation (5-acre minimum) of commercial food or commercial forage crops, unusable).

Available background information indicates that there is no resource use of groundwater within 4 miles of the Norpak site.

Ref. 23.



## **SURFACE WATER ROUTE**

- 0. Describe the likelihood of a release of contaminant(s) to surface water as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them to the site. For observed release, define the supporting analytical evidence and relationship to background.**

A release of site-attributable contaminants to surface water is not observed or suspected. Runoff from the site flows to a shared, unlined drainage ditch that runs north along the eastern boundary of the property. The drainage ditch leads to the Passaic River which is adjacent to the Norpak property. Available data indicates that samples from groundwater seeps into the Passaic River were not contaminated with lead, which is present in high levels in on-site soil. Based on the fact that the site is located in a heavy industrial area, documenting a release of contaminants, attributable to potential releases from the Norpak site, to surface water is unlikely.

Ref. 5; 12; 16, pp. 14 through 16; 20, pp. 11.

- 11. Identify the nearest down slope surface water. If possible, include a description of possible surface drainage patterns from the site.**

The nearest downslope surface water body is the Passaic River and is located adjacent to the northern boundary of the Norpak site. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the property. The probable point of entry (PPE) to surface water is the confluence of the drainage ditch with the Passaic River.

Ref. 5; 12; 16, pp. 14 through 16.

- 12. What is the distance in feet to the nearest down slope surface water? Measure the distance along a course that runoff can be expected to follow.**

The nearest downslope surface water body is the Passaic River, located adjacent to the northern boundary of the site. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the property for approximately 100 feet. The drainage ditch discharges to the Passaic River.

Ref. 5.

**13. Identify all surface water body types within 15 downstream miles.**

The nearest downslope surface water body is the Passaic River, located adjacent to the northern boundary of the Norpak site. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the property. The probable point of entry (PPE) to surface water is the confluence of the drainage ditch with the Passaic River. The in-water segment extends from the PPE along the Passaic River to the east and then south where the Passaic River enters the Newark Bay. The in-water segment continues south through the Newark Bay where it splits approximately 7 miles downstream of the PPE. The western portion extends south and ends in the Arthur Kill. The eastern portion extends east through the Kill Van Kull and then splits again, approximately 12 miles downstream of the PPE. The eastern portion of the surface water migration pathway ends to the north in the Upper Bay and to the south in The Narrows.

Ref. 5; 12; 16, pp. 14 through 16.

**14. Determine the 2-yr, 24-hr rainfall (inches) for the site.**

The 2-year, 24-hour rainfall for the site is 3.5 inches.

Ref. 14.

**15. Determine size of the drainage area (acres) for sources at the site.**

The Norpak site encompasses approximately 7.5 acres. Runoff from the site is likely to be intercepted by an unlined drainage ditch that runs north along the eastern boundary of the property.

Ref. 5; 6, p. 1.

**16. Describe the predominant soil group in the drainage area.**

The site was observed to be mostly paved during the on-site reconnaissance conducted by Region 2 SAT. Therefore, the predominant soil group in the drainage area is evaluated as an impermeable surface (i.e., pavement).

Ref. 5.

**Determine the type of floodplain that the site is located within.**

The Norpak facility is situated within Flood Zone A, as designated by the Federal Emergency Management Agency (FEMA). Zone A is defined as an area within the 100-year floodplain and is subject to flooding.

Ref. 19.

3. **Identify drinking water intakes in surface waters within 15 miles downstream of the point of surface water entry. For each intake identify: the name of the surface water body in which the intake is located, the distance in miles from the point of surface water entry, population served, and stream flow at the intake location.**

There are no drinking water intakes within 15 miles downstream of the PPE.

Ref. 22.

9. **Identify fisheries that exist within 15 miles downstream of the point of surface water entry. For each fishery specify the following information:**

<u>Fishery Name</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Saline/Fresh/Brackish</u>
Passaic River	Coastal Tidal Water	NA	Saline
Newark Bay	Coastal Tidal Water	NA	Saline
Arthur Kill	Coastal Tidal Water	NA	Saline
Kill Van Kull	Coastal Tidal Water	NA	Saline
Upper Bay	Coastal Tidal Water	NA	Saline
The Narrows	Coastal Tidal Water	NA	Saline

Ref. 25, pp. 1 through 6.



0. Identify surface water sensitive environments that exist within 15 miles of the point of surface water entry.

<u>Environment</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Wetland Frontage (mi.)</u>
Wetlands	Coastal Tidal Waters	NA	10.28
Three State-Designated Endangered Species Habitats	Coastal Tidal Water	NA	NA

Ref. 2; 9; 12; 17.

21. If a release to surface water is observed or suspected, identify any intakes, fisheries, and sensitive environments from question Nos. 18-20 that are or may be actually contaminated by hazardous substance(s) attributed to an observed release of from the site.

A release to surface water is not observed or suspected; see Question No. 10 for a description of the likelihood of a release.

Ref. 5; 12; 16, pp. 14 through 16; 20, pp. 11.

22. Identify whether the surface water is used for any of the following purposes, such as: irrigation (5 acre minimum) of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation, recreation, potential drinking water supply.

A release to surface water is not observed or suspected; see Question No. 10 for a description of the likelihood of a release.

Ref. 5; 12; 16, pp. 14 through 16; 20, pp. 11.

20. Identify surface water sensitive environments that exist within 15 miles of the point of surface water entry.

<u>Environment</u>	<u>Water Body Type</u>	<u>Flow (cfs)</u>	<u>Wetland Frontage (mi.)</u>
Wetlands	Coastal Tidal Waters	NA	10.28
Three State-Designated Endangered Species Habitats	Coastal Tidal Water	NA	NA

Ref. 2; 9; 12; 17.

21. If a release to surface water is observed or suspected, identify any intakes, fisheries, and sensitive environments from question Nos. 18-20 that are or may be actually contaminated by hazardous substance(s) attributed to an observed release of from the site.

A release to surface water is not observed or suspected; see Question No. 10 for a description of the likelihood of a release.

Ref. 5; 12; 16, pp. 14 through 16; 20, pp. 11.

22. Identify whether the surface water is used for any of the following purposes, such as: irrigation (5 acre minimum) of commercial food or commercial forage crops, watering of commercial livestock, commercial food preparation, recreation, potential drinking water supply.

A release to surface water is not observed or suspected; see Question No. 10 for a description of the likelihood of a release.

Ref. 5; 12; 16, pp. 14 through 16; 20, pp. 11.

## **EXPOSURE PATHWAY**

**Determine the number of people that occupy residences or attend school or day care on or within 200 feet of observed contamination.**

There are no residences, schools, or day care centers on or within 200 feet of observed soil contamination. The site is located in a heavy industrial area of Newark, New Jersey.

Ref. 5; 10; 13.

**Determine the number of people that regularly work on or within 200 feet of observed contamination.**

Approximately 50 people work on the Norpak property.

Ref. 5.

**Identify terrestrial sensitive environments on or within 200 feet of observed contamination.**

There are no terrestrial sensitive environments on or within 200 feet of the Norpak site. The property is located in a heavy industrial area of Newark, New Jersey.

Ref. 5.

**Identify whether there are any of the following resource uses, such as commercial agriculture, silviculture, livestock production or grazing within an area of observed or suspected soil contamination.**

There are no resource uses of soil on or within 200 feet of the Norpak site. The property is located in a heavy industrial area of Newark, New Jersey.

Ref. 5.



## PATHWAY

Describe the likelihood of release of hazardous substances to air as follows: observed release, suspected release, or none. Identify contaminants detected or suspected and provide a rationale for attributing them the site. For observed release, define the supporting analytical evidence and relationship to background.

A release to air is not observed or suspected for the Norpak site. On-site contaminants are lead in soil, resulting from past lead smelting activities at the site. Norpak currently has several air permits for the operation of printing presses; however, the majority of the ink currently used is water-based rather than solvent based. Air monitoring with a Photo-Ionization Detector conducted during an on-site reconnaissance of the Norpak site did not reveal any readings above background.

Ref. 5; 6, pp. 2, 4, 5.

8. Determine populations that reside within 4 miles of the site.

<u>Distance</u>	<u>Population</u>
On-site	0
>0 - 1/4 mi	0
>1/4 - 1/2 mi	547
>1/2 - 1 mi	3,647
>1 - 2 mi	61,365
>2 - 3 mi	133,604
>3 - 4 mi	258,475

Approximately 457,638 people reside within a 4-mile radius of the Norpak site.

Ref. 15.